

HISTORY OF CALPAL 1984-2024

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Zenodo Repository <https://zenodo.org/records/10194389>

CalPal Edition 2024.7

2024 End Edition 2024.7 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 New Adriatic.mcf graph added to installation: Adriatic Cores & GISP2 nssK⁺ & Albania/Bulgaria CopperAge
2024 New Climate Record: Adriatic Core MP39PC 775 m Ba-ox (Filippidi & de Lange, 2024)
2024 New Climate Record: Adriatic Core MP39PC 775 m Ba-carb (Filippidi & de Lange, 2024)
2024 New Climate Record: Adriatic Core MP39PC 775 m Ba/Al (Filippidi & de Lange, 2024)
2024 New Climate Record: Adriatic Core MP37PC 1908 m Mo/Al (Filippidi & de Lange, 2019)
2024 New Climate Record: Adriatic Core MP37PC 1908 m V/Al (Filippidi & de Lange, 2019)
2024 New Climate Record: Adriatic Core MP39PC 775 m Mo/Al (Filippidi & de Lange, 2019)
2024 New Climate Record: Adriatic Core MP39PC 775 m V/Al (Filippidi & de Lange, 2019)
2024 New Climate Record: Adriatic Core MP50PC Mn/Al (Filippidi & de Lange, 2019)
2024 Adriatic Core MP50PC 775 m Ba/Al corrections in documentation (Help/ClimateLit/Nr.393)
2024 Adriatic Core MP39PC 1359 m Ba/Al corrections in documentation (Help/ClimateLit/Nr.394)
2024 Globalmapper Cartography Dialog: Added Import Routines, Ready for Cartography Filtering.
2024 Globalmapper Cartography Dialog: Added SELECT CONTINENT Button.
2024 Chronology Composer Dialog: Added BubbleUp Help for SELECT CONTINENT Button.
2024 Database Dialog: Added BubbleUp Help for SELECT CONTINENT Button.
2024 Chronology Composer Dialog: SPD and SumBarcode Graphs are given independent Subroutines.
2024 Chronology Composer Dialog: Added SumBarCode Diagram for Dates Chronology.
2024 Chronology Composer Dialog: ArteficialStop readjusted for all chronologies.
2024 Chronology Composer Dialog: Switch on ProgressBar for counts on number of dates & calibration curves
2024 Missing File CalCurveComparisons_2020.pdf added to installation.
2024 Update of short-lived material log files for all Continents
2024 PanMap taken out of Programs and Installation
2024 Dialog Climate_Age_Depth taken out of Programs and Installation
2024 Dialog Climate_Age_Age taken out of Programs and Installation
2024 Dialog Climate Correlation Dialog taken out of Programs and Installation
2024 Dialog Climate Combine Dialog taken out of Programs and Installation
2024 Egyptian Historical Chronology added to CalPal_All_Continents.xlsx database: Outline Ages for Dynasties.
2024 Info in Chronology Dialog: Added Number of presently loaded Countries and Sites
2024 Chronology Dialog: 'Import Running...' renamed running SELECT CONTINENT Button & Field colour *Green*
2024 Database Dialog: Added Help Texts how to personalise Continental ¹⁴C-Database Management
2024 Info in Database Dialog: Added Number of presently loaded Countries and Sites
2024 Floating SELECT CHRONOLOGY Dialog: Added User Help Texts
2024 Database Dialog: 'Import Running...' renamed running SELECT CONTINENT Button & Field colour *Green*
2024 New Function in Database Dialog: SELECT CONTINENT Button to test & load Continental Spreadsheet.
2024 Studies to change/select Excel Spreadsheet Name for Database selection *via* floating Listmatch Menu

2024 Begin Edition 2024.7 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 The new CCS/ $\Delta R \pm \Delta R \sigma$ Excel-Database Functionality is now reasonably complete & tested for all Dialogs.
2024 Correspondence Analysis Dialog: Update to Past4.17 for CA-comparisons and editing support
2024 Cleaning and restructuring of CalPal_All_Continents.xlsx .
2024 Completion of Text-File (pdf): CalPal Interdialog Comparisons for Calibration Curve Switching (CCS).
2024 Info-Text added to HELP in Database Dialog, how to personalise the loaded default database.
2024 Barcode Historical Egyptian Chronology added to installation.
2024 Calibration in CCS/ $\Delta R \sigma$ Modus of the complete CalPal_All_Continents.xlsx database (N=180763)
2024 CalPal (nonCCS and CCS Modus) and Calib810 Comparisons (Palaikastro N=3). Interdialog variability ± 2 yrs
2024 Added CalCurve-Select file for Dispilio (Albania) Miyake 5259 BCE Averaged ¹⁴C-Ages (Maczkowski & 2024)
2024 Added CalCurve-Select file for Dispilio (Albania) Miyake 5259 BCE Single ¹⁴C-Ages (Maczkowski & 2024)
2024 Graphic Comparisons CalTable-CalKN-Multigroup-Database-Calib810 for non-CCS/CCS/ $\Delta R \sigma$.
2024 Numeric Comparisons CalTable-CalKN-Multigroup-Database-Calib810 for non-CCS/CCS/ $\Delta R \sigma$.
2024 New Function in Calibrate Database Dialog: CSV-Import/Export supports non-CCS/CCS/ $\Delta R \sigma$ Switch.
2024 New Function in Calibrate Database Dialog: Excel-Import/Export supports non-CCS/CCS/ $\Delta R \sigma$ Switch.
2024 New Function in Calibrate Database Dialog: Checkbox to turn ON/OFF Reservoir ΔR and $\Delta R \sigma$ corrections.

2024 New Function in Chronology Dialog: Table Output for non-CCS Modus (for all Chronologies: Sites etc).

2024 New Function in CalKN Dialog: Colour introduced for calendric-scale Barcodes in CCS and CCS/ ΔR Modus.

2024 New Construction of Marine20 CC with Spline now closer to IntCal (N=20, 0-20 kyrs: Centroid $\Delta = 1 \pm 15$ yrs)

2024 New ^{14}C -Data: Mitrou, Greece, Late Helladic I Sequence (N=10) (Vitale & 2024)

2024 New Multigroup File Rapa Nui with numerous CCS/ ΔR σ Marine/SHemisphere Switches (useful for testing)

2024 Test Comparisons CalKN-Multigroup Dialog for non-CCS/CCS/ $\Delta R \pm \Delta R \sigma$ data & SET Operations. Graphs: OK

2024 New Function in Multigroup Dialog: Read/Write (File Open/Save) extended to include $\Delta R/\Delta R \sigma$ values

2024 New Function in Multigroup Dialog: Checkbox to turn ON/OFF Reservoir ΔR and $\Delta R \sigma$ corrections

2024 New Function in Chronology Dialog: Checkbox to turn ON/OFF Reservoir ΔR and $\Delta R \sigma$ corrections

2024 Default Database [Europe & Africa & Asia] CalPal-Gobal.xlsx 57184 dates, 10530 sites, 97.5 % georef

2024 Release Notes added for data filters applied to Vermeersh Late Glacial CalPal-Database Extension

2024 Added Palaeolithic ^{14}C -Database Vermeersh V21 (4440 dates 10-16 ka BP, $\sigma < 200$ BP; 1070 sites)

2024 Begin Edition 2024.6 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 The CalKN Dialog is now complete, in terms of automated CSS/ $\Delta R \pm \Delta R \sigma$ Excel database import & analysis

2024 Enhancement to CalKN Dialog: Completed Documentation for CSS/ $\Delta R \pm \Delta R \sigma$ data (Graph Table & File)

2024 New ^{14}C -Data: Albania, Sovjan, Early Bronze Age Dendro-Sequenz (N=13) (Mackowski & 2022)

2024 New Climate Record: South America Botuverá Cave $\delta^{18}\text{O}$ 0-90 ka calBP (Wang & 2007)

2024 New Climate Record: South America Botuverá Cave $\delta^{13}\text{C}$ 0-80 ka calBP (Wang & 2007)

2024 New Climate Record: South America Jaragua Cave $\delta^{18}\text{O}$ 0-18.6 ka calBP (Novello & 2017)

2024 New Climate Record: South America Jaragua Cave $\delta^{13}\text{C}$ 0-18.6 ka calBP (Novello & 2017)

2024 New Multiclimates file added to installation: Brazil_Sites.mcf (Brazil SPD, Brazil Sites)

2024 New Multiclimates file added to installation: Brazil.mcf (with Brazil SPD, Brazil Sites, Botuverá records)

2024 New Climate Record: South America Botuverá Cave Ba/Ca 0-10 ka calBP (Bernal & 2016)

2024 New Climate Record: South America Botuverá Cave Mg/Ca 0-10 ka calBP (Bernal & 2016)

2024 New Climate Record: South America Botuverá Cave Sr/Ca 0-10 ka calBP (Bernal & 2016)

2024 New Climate Record: South America Botuverá Cave $\delta^{18}\text{O}$ 0-10 ka calBP (Bernal & 2016)

2024 Enhancement to CalKN Dialog: Documentation CSS-Table added for combined ^{14}C -Age/DeltaR values

2024 Enhancement to CalKN Dialog: Speed Up of Database Import

2024 New Function in CalKN Dialog: Checkbox to turn ON/OFF Reservoir ΔR and $\Delta R \sigma$ corrections

2024 Enhancement to CalKN Dialog: Revised Run-Time Measurements (Clock & Progress Bar)

2024 New ^{14}C -Data: Albania, Epipalaeolithic-Iron Age (N=+138), (Raka & 2022)

2024 Enhancement to CalKN Dialog: Numeric CCS-Output File extended to include Reservoir ΔR and $\Delta R \sigma$ fields

2024 New Function in CalKN Dialog: Climate Context graph (SPD-Barcode combi) for CCS-CCS switch Modus

2024 New Function in CalKN Dialog: CalCurve Error Bars for CCS-CCS switch (individually calibrated ^{14}C -ages)

2024 New Function in CalKN Dialog: ^{14}C -Histogram for CCS-switch (individual Reservoir Ages pending)

2024 New Function in CalKN Dialog: ^{14}C - and CalScale Barcode graphs for CCS-CCS switch

2024 New Function in CalKN Dialog: summed SPD graph for CCS-CCS switch (individually calibrated ^{14}C -ages)

2024 Begin Edition 2024.5 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 Total CalPal_All_Continents: 171789 dates (guess 1 % LabCode-Doublets cf. missing Sitenames).)

2024 Reduced Size [Default =Europe & Africa & Asia] CalPal-Gobal.xlsx 70602 dates, 14237 sites, 97.6 % georef

| | |
|---|---------------------------------------|
| 2024 Separate South America Standalone.xls | 6906 dates, 1353 sites, 99.9 % georef |
| 2024 Separate Polynesia Standalone.xls | 2264 dates, 51 islands, 90.5 % georef |
| 2024 Separate Japan Standalone.xls | 30673 dates, 4394 sites, 100 % georef |
| 2024 Separate Australia Standalone.xls | 4246 dates, 1383 sites, 98.8 % georef |
| 2024 Separate China Standalone.xls | 4121 dates, 955 sites, 100 % georef |
| 2024 Separate North America Standalone.xlsx | 52977 dates, 7088 sites, 100% georef |

2024 Further database separation (Australia, China, Polynesia, South America, Japan) to reduce loading time

2024 Comparisons of CCS & non-CCS calages show numeric inter-dialog variability of max ± 4 calyrs, [age&STD]

2024 New Function in Chronology Dialog: Counts of Marine samples with $\Delta R \pm \sigma$ values given in database

2024 Bug Fix in Chronology Dialog: Reservoir ΔR and $\Delta R \sigma$ fields added to Bubble Sort of Database variables

2024 Definition of INTEGER=PARAMETER for Default NH and Marine Calibration Curve Names

2024 Unification of Read/Write filter formats in Globalmapper and Globalmapper Sites Dialogs

2024 Bug Fix in Edit field in Globalmapper and Globalmapper Sites Dialogs (further Fixes pending)

2024 CalPal Gobal.xlsx contains N=88651 dates, 18014 sites, 97.8 % georef, 71% ΔR

2024 New ^{14}C -Data Australia, Jiigurra (Lizard Island group) (N=51), (Ulm & 2024)

2024 New ^{14}C -Data Serbia, Early Neolithic (N=+195), (Blagojevic & 2024)

2024 Amendments to Database Dialog: List of Methods added to Menu

2024 Amendments to Database Dialog: Reset Data Errors for ASCII-REIMPORT, EXCEL-REIMPORT, and SELECT

2024 Test of Database Dialog: FILTER and SELECT work for all database variables

2024 Local Marine Reservoir DeltaR values added to Polynesia database based on calib.org/marine

2024 METHOD=Freshwater is added. DELTAR≠0 is now by *default* applied to all METHODS i.e. CCS and non-CCS.

2024 New CCS METHOD: Added METHOD=Freshwater with default NH-Hemisphere and Barcode Colour blue

2024 New Function: If DELTAR is given, and CCS is selected, it is applied to imported ¹⁴C-ages (all DB-formats)

2024 Update of CalPal_Gobal.xlsx to include Sakhtysh (Meadows & 2024: with 2 models of Dietary Corrections)

2024 Modelled Local Dietary Reservoir DeltaR values (Meadows & 2024) added to Demo-CCS-file Sakhtysh

2024 Added Demo-CCS file Greyfriars (Cook & 2015) for Human Dietary Reservoir-Ages in the N-Hemisphere

2024 Added Demo-CCS-file Sakhtysh (Meadows & 2024) for Terrestrial Reservoir-Ages in the N-Hemisphere

2024 Added Demo-CCS-file Cabeçuda (Alves & 2013) for Local Marine Reservoir-Ages in the S-Hemisphere

2024 New Function: If DELTAR is given, it is always applied (default: but only for CCS-selection) to input ¹⁴C-ages

2024 Testing of Dialogs (Database, Chronology, Database Calibration) for processing of local Reservoir-Ages

2024 Testing of Grids for data input/output of local Reservoir-Ages for all formats (ASCII, CSV and Excel)

2024 Unification of Columns in Grids to simplify application of CCS-METHODs and DELTAR corrections

2024 Extension of Database and Chronology Dialogs to include sample-specific Reservoir corrections

2024 Bug Fix in Database Dialog: Table Print extended by including all 21 columns (previously only 20)

2024 Begin Edition 2024.4 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 Feasibility study for automated sample-specific Reservoir correction (freshwater & marine, via METHOD)

2024 New Climate Record: Indonesia Gempa Bumi Cave stalagmite $\delta^{13}\text{C}$ 0-40 ka calBP (Krause & 2024)

2024 Size-Reduced CalPal_Gobal.xlsx contains N=88305 dates, 141 countries, 17993 sites, 97.8 % georef

2024 New ¹⁴C-Data Mongolia, Bronze & Iron Age (N=22), (Bemmann & 2024)

2024 New ¹⁴C-Data Germany, Niedertiefenbach, Wartberg Megalithic Grave (N=20) (Immel & 2021)

2024 Bug Fix in Chronology Composer: The SumSPD was sometimes incomplete, depending on data order

2024 USA_Standalone.xlsx contains N=52383 dates

2024 Japan_Standalone.xlsx contains N=30674 dates

2024 New ¹⁴C-Data Ukraine, Neolithic-Chalcolithic (N=181), (Diachenko & 2024)

2024 Amendments to Literature Dialog: Added Aegis 26, Correspondence Analysis (Weninger & Krauß, 2024)

2024 New ¹⁴C-Data Mongolia, Bronze & Iron Age (N=29), (Görsdorf & 2001)

2024 New ¹⁴C-Data Mongolia, early pastoralism (N=23), (Taylor & 2019)

2024 New Climate Record: Epica EDML Sea Salt Na⁺ (Sea Ice Extent) 1.2-145 ka calBP (Fischer & 2007)

2023 Update to Winteracter 15.0g

2024 Reduced Size CalPal_Gobal.xlsx contains N=88065 dates, 17909 sites, 97.7 % georef

2024 Excel Database Size Reduction and Speed Increase: Separate Storage of Japan and USA Excel databases

2024 Version 14th March 2024 Compiler Database Size reduced from 260 k to 120 k ¹⁴C-ages to ensure stability

2024 Bug Fix in Multicliamte Dialog: Barcode Texts are now shown correctly on the Multicliamte graph

2024 CalPal_Gobal.xlsx contains (N=171134 dates, 191 countries/regions, 29266 sites, 98.8 % georef)

2024 New ¹⁴C-Data Horse DNA, Yamnaya &, (N=158), (Librado & 2021)

2024 Unification of Period (N=12) and Site (N=579) Nomenclature for South Africa database (N=2169 dates)

2024 New ¹⁴C-Data South Africa, (N=588, 100% georef) (Loftus & 2024)

2024 New ¹⁴C-Data Aleutian Islands, USA (N=64), (Hatfield & 2019)

2024 New ¹⁴C-Data Alaska, USA (N=75), (Barton & 2018)

2024 New ¹⁴C-Data Ancien Arsenaux, Switzerland, Early Neolithic (N=30), (van Willigen & 2024)

2024 New ¹⁴C-Data Lăpuș, Romania, Late Bronze Age (N=11), (Metzner-Nebelsick & 2010, Kaksó & 2011)

2024 Amendments to Utility Dialog: Added Help-file for CCS-colours

2024 Unification of CCS-Colours for Barcodes in the Multicliamte and Multichronology Subroutines

2024 Test of Multicliamte Composer: Barcode Chronologies (CCS, non-CCS, timing, Colours)

2024 New Function in Multicliamte Composer: CCS-METHOD added to Barcode import file

2024 New Function in Chronology Composer: CCS-METHOD added to Barcode export file

2024 Amendments to Chronology Composer: Unified CCS-SPDs for all Chronologies

2024 New Climate Record: East Polynesia, Atiu Island, Ti (ITCZ), 815 BCE-2015 AD (Sear & 2020)

2024 New Climate Record: East Polynesia, Atiu Island, TOC, 843 BCE-2014 AD (Sear & 2020)

2024 New Climate Record: East Polynesia, Atiu Island, $\delta^{13}\text{C}$, 843 BCE-2014 AD (Sear & 2020)

2024 CalPal_Gobal.xlsx contains (N=168975 dates, 189 countries/regions, 29172 sites, 98.8 % georef)

2024 New ¹⁴C-Data Sânmăndrei, Romania, Vinča C (N=+20 dates), (Drașovean & 2022)

2024 Amendments to Chronology Composer: CCS Colour change for single in Barcode and Sum

2024 New ¹⁴C-Data: Pacific Islands, Upolu, (N=4), (Petchey 2001)

2024 New ¹⁴C-Data: Pacific Islands, Saipan, Tinian, Guam (N=28), (Carson & 2020)

2024 New ¹⁴C-Data: Indonesia, Tonga, Nukuleka (N=5), (Anggraeni & 2004)

2024 New ¹⁴C-Data and U/Th-Ages: Pacific Islands, (N=20), (Burley & 2010, 2014, 2015)

2024 New ¹⁴C-Data: Pacific Islands, Lapita Culture (N=20), (Kirch and Hunt 1988)

2024 New ¹⁴C-Data: Pacific Islands, Lapita Culture (N=11), (Burley & 2007)

2024 Begin Edition 2024.3 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 CalPal_Gobal.xlsx contains (N=168654 dates, 185 countries/regions , 29157 sites, 98.8 % georef).

2024 Successful Stability Tests for Database Size Extension to (max) 260k ¹⁴C-ages

2024 Extension of Database Size (Import/Export) from 200k to (max) 260k ¹⁴C-ages

2024 Amendments to GaussWM: Added GaussWM Model (Equi-length-level) for Zagora

2024 New ¹⁴C-Database Zagora, Greece (Andros), Early Iron Age (N=11) dates (Alagich & 2024)

2024 New ¹⁴C-Database Torres Strait (N=339 dates, 67 sites, 100.0 % georef) (Linnenlucke & 2023)

2024 New ¹⁴C-Database Papua New Guinea (N=567 dates, 336 sites, 59.3 % georef) (Shaw 2021)

2024 Amendments to Calibrate Database Dialog: Added recommendation to use unrounded CalAges

2024 Amendments to Calibrate Database Dialog: Default set to unrounded CalAges (avoids CalSTD=0)

2024 Bug Fix in Calibrate Database Dialog: Corrected output text for number of updated CalAges

2024 CalPal_Gobal.xlsx uploaded to Academia site

2024 CalPal_Gobal.xlsx contains (N=167748 dates, 185 countries/regions , 29098 sites, 98.9 % georef).

2024 New ¹⁴C-Data: Pakistan, Holocene Archaeology of the Arabian Sea (N=138), (Biagi, 2024)

2024 New ¹⁴C-Data: Honduras, El Gigante, (N=279), (Kennett & 2023)

2024 The First Book (Seventh Edition) of Globally Incomplete ¹⁴C-Site Chronologies

2024 Amendments to CalPal_Gobal.xls. Updated listing of CCS-METHODS

2024 Amendments to Database Dialog: Updated listing of shortlived sample

2024 Amendments to CalPal_Gobal.xls: Systematic recoding (Material/Species) of marine samples

2024 Systematic recoding/documentation of overlength LabCode PRI

2024 Bug Fix in Cartography Dialog: Coordinate Converter Degrees->Decimal output corrected

2024 Bug Fix in Chronology Dialog: AD-Cutoff in Dates-Chronology corrected

2024 Comparison of CCS/non-CCS graphs shows that p3k14C ages are default marine-corrected.

2024 Amendents to N America ¹⁴C-DB METHOD (Calibration Curve Switch) added to all dates

2024 New ¹⁴C-Database N America(N=51735, 7187 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Mexico (N=220 dates, 21 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Guatemala (N=227 dates, 19 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database El Salvadore (N= 5 dates, 1 site, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Honduras (N= 50 dates, 5 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Thailand (N=139 dates, 9 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Belize (N=665 dates, 53 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database India (N= 57 dates, 15 sites, 100% georef), (P3k14C)

2024 New ¹⁴C-Database Japan (N=31521 dates, 4495 sites, 100% georef), (P3k14C)

2024 Tests for Cartography Dialog Extension from N=100k to 200k ¹⁴C-ages

2024 Stability Tests for Chronology Dialog Extension from N=100k to 200k ¹⁴C-ages

2024 Stability Tests for Database Calibration Dialog Extension from N=100k to 200k ¹⁴C-ages

2024 Stability Tests for Database Import Dialog Extension from N=100k to 200k ¹⁴C-ages

2024 Stability Test Runs for Extension of Database (Import/Export) N=100k -> 200k ¹⁴C-ages

2024 ¹⁴C-Database: CalPal_Gobal.xlsx [N=86431 dates, 119 countries , 17953 sites, 97.8 % georef].

2024 Update to Past4.16c

2024 Begin Edition 2024.2 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2024 The First Book (Sixth Edition) of Globally Incomplete ¹⁴C-Site Chronologies

2024 ¹⁴C-Database: CalPal_Gobal.xlsx [N=86430 dates, 119 countries , 17927 sites, 97.6 % georef].

2024 Default Database set = 'CalPal_Gobal.xlsx' (Europe , Africa, S-America, China, Australia).

2024 Added ¹⁴C-Database Scandinavia (N=+691 dates), (Bunbury & 2024)

2024 Added ¹⁴C-Database British_Isles.xlsx (N=30428 dates, 628 sites, 100% georef), (Bevan & 2017)

2024 Added ¹⁴C-Database China.xlsx (N=4263 dates,982 sites, 100% georef), (Wang & 2014)

2024 Added ¹⁴C-Database Japan.xlsx (N=31557 dates, 4495 sites, 100% georef), (Kudo & 2023)

2024 Renamed 'Europe.dat' = 'CalPal_Global.dat'

2024 New ¹⁴C-Data: Hungary, Neolithic, Lengyel/Sopot, Sormás-Török-földek (N=8), (Barna 2007)

2024 Bug Fix in Chronology Composer: Sort Ages larger than 9999 yrs 2K are now shown.

2024 Amendments to Chronology Composer: Revised position of SPD-SumBarCode-Gauge block.

2024 Amendments to Chronology Composer: Revised layout of chronology filter documentation.

2024 Substantial cleaning of 'Europe.dat'-database (N=70921 dates, 14077 sites, 97.2 % georef)

2024 New ¹⁴C-Data: Spain, Mesolithic-Neolithic-Chalcolithic (N=30), (Martínez Sánchez, 2024)
2024 New ¹⁴C-Data: Spain, Zacotin Abris (N=9), Meso-Neo Transition, (Martínez Sánchez, 2024)
2024 Amendments to Database Import Dialog: New Button for inverse alphanumeric sorting
2024 Bug Fix in Database Import Dialog: Database column alphanumeric sort routine repaired
2024 ¹⁴C-Database: Europe-NearEast-Africa.xlsx, N=70880 dates, 14070 sites, 97.2 % georef
2024 New ¹⁴C-Data: Greece, Platia Magoula Zarkou (N=10), Middle Neolithic, (Weninger & 2022)
2024 New ¹⁴C-Data: Meso/Neo, Netherlands, Swifterbant (N=30), (Dreshaj & 2024)
2024 Multiclimature Composer: Bubble-Up Help added to some of the dialog items
2024 Amendments to Multiclimature Composer: Added Checkbox for Summed Barcodes
2024 Amendments to Multiclimature Composer: Unified Summed Barcode Graphs for Chronologies
2023 New ¹⁴C-Data: Pre-Hispanic Urbanism, Casarabe Culture (N=94), Bolivia (Prümers & 2022)
2024 Amendments to Literature Dialog: Added Troy III-V Gap confirmed (Easton & Weninger, 2023)
2024 New ¹⁴C-Database: South_America.xlsx (Riris and Arroyo-Kalin (2019) , Goldberg & 2016)
2024 New Climate Record: SW-China Poya Cave, $\delta^{18}\text{O}$, 12.68-0.08 ka calBP (Duan & 2023)
2024 ¹⁴C-Database: Europe-NearEast-Africa.xlsx, N=72229 dates, 14151 sites, 96.5 % georef
2024 ¹⁴C-Database: Added Data (+ 400 ¹⁴C-ages) from ¹⁴C-Sea Database (Agathe Reingruber)
2024 Amendments to Multiclimature Dialog: Added Theopetra (Thessaly) multiclimature file
2024 Amendments to Globalmapper Dialogs: Preview File for SE_Europe.png 3D-heatmap
2024 Amendments to Globalmapper Dialogs : Treeview Item for SE Europe 3D-heatmap
2024 Amendments to Multigroup Dialog: CCS Modus set as default
2024 Amendments to Chronology Composer Dialog : CCS Modus set as default
2024 Begin Edition 2024.1 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2024 Software Design for automated 2D site density mapping and 3D site/age heatmap modelling
2024 Amendments to Installation: Added Help and Demo files for 3D-heatmap construction
2024 Amendments to Globalmapper Dialogs: Preview File for Australia.png 3D-heatmap
2024 Amendments to Globalmapper Dialogs : Treeview Item for Australia 3D-heatmap
2024 Amendments to Globalmapper Dialogs: Preview File for Europe_NearEast.png 3D-heatmap
2024 Amendments to Globalmapper Dialogs : Treeview Item for EuropeNearEast 3D-heatmap
2024 Amendments to Globalmapper Dialogs: Added Treeview Item 'Australia' for HEATMAPS
2024 Amendments to Globalmapper Dialogs: Added Treeview Item 'EuropeNearEast' for HEATMAPS
2024 Amendments to Chronology Composer: Added demofiles for heatmap construction
2024 Amendments to Chronology Composer: Added HELP to make heatmaps with Globalmapper11
2024 Amendments to Chronology Composer: 3D Heatmap file (latitude,longitude,maxage,sitename)
2024 Amendments to Chronology Composer: Button added to view Heatmap file
2024 Amendments to Chronology Composer: Polynomial fields shown (only) for Sites
2024 Amendments to Chronology Composer: Checkbox added to show Demographic Polynomial
2024 Bug Fix in Globalmapper Sites Dialog: Backup of Europe.dat corrected (missing directory)
2024 Bug Fix in Globalmapper Dialog : Backup of Europe.dat corrected (missing directory)
2024 New Climate Record: N-Iraq, LoNAP514 Flowstone, 11-6.8 ka calBP, $\delta^{18}\text{O}$ (Regattieri & 2023)
2024 New Climate Record: N-Iraq, LoNAP514 Flowstone, 11-6.8 ka calBP, $\delta^{13}\text{C}$ (Regattieri & 2023)
2024 Amendments to Chronology Composer: Trackbar selectable Aesthetic Gaussian-Smoothing
2024 Amendments to Chronology Composer: Hidden Fields changed to Smooth/NoSmooth selection
2024 Amendments to Chronology Composer: Hidden Fields reduced from 3 to 2 Radiobuttons
2024 Amendments to Chronology Composer: CCS-Colours added to summed Barcode graph
2024 Amendments to Chronology Composer: Optional SPD graph added to Barcode graph for CSS 2024
Updated Past 4.15 Function in floating interface of CA-dialog: External Call to Past 4.15
2024 Bug Fix in Menu Print Dialog: Name of calling Dialog added to enable correct screen refresh
2024 ¹⁴C-Database: Europe-NearEast-Africa.xlsx shortlived N=63348 dates, 4894 sites, 97.5 % georef
2024 ¹⁴C-Database: Europe-NearEast-Africa.xlsx total N=71731 dates, 14167 sites, 96.9 % georef
2024 Added ¹⁴C-Database: Neolithic & Bronze Age (+1997 dates), Central Europe (Graßmann & 2023)
2024 New Climate Record: MD99-2266 UK37-SST (North Atlantic) 0.3-10.5 ka calBP (Moossen&2015)
2023 New Function: Menu Item Print Dialog added to Dialogs
2023 New ¹⁴C-Data: Middle Neolithic, Platia Magoula Zarkou, Greece, N=10 dates (Weninger & 2022)
2023 Update to Winteracter 15.0f
2023 Added CCS-database for the Egyptian Historical Chronology Dyn 1-30 (Hornung & 2006)
2023 Christmas Edition 2023 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 New Climate Record: Antarctic EDC Deuterium 0-30 ka calBP (Jouzel & 2007)
2023 New Climate Record: NW Australia Core SO185-18506, K/Ca, 24-4 ka calBP (Kuhnt & 2015)

2023 New Climate Record: NW Australia Core SO185-18506, Dust, 24-4 ka calBP (Kuhnt & 2015)

2023 ¹⁴C-Database: Europe.dat shortlived N=21974 dates, 4800 sites, 97.4 % georef

2023 ¹⁴C-Database: Europe-NearEast-Africa.xlsx calibrated N=69736 dates, 13918 sites, 96.8 % georef

2023 New ¹⁴C-Data: Early Neolithic, Tepe Abdul Hosein, Iran, (N=+6 dates), Nishiaki & 2022

2023 New ¹⁴C-Data: Late Neolithic, Umm Huwaiwitat, Jordan, (N=4 dates), Plekhov & 2023

2023 New ¹⁴C-Data: Late Bronze Age, Carpathian Basin, (N=50 dates), Molloy & 2023

2023 New ¹⁴C-Data: Chalcolithic, KGKVI, SE-Europe, (N=130 human), Penske & 2023

2023 Bug Fix in Globalmapper Excel Menu Import: Corrected Format for writing ¹³C to UNIT=14 file

2023 New ¹⁴C-Database: China (N=4657 dates; M=1050 sites, 100% georef), Wang & 2014)

2023 Added ABOUT/ DOCUMENTATION for CalCurves Nr.19-23 (including Zonal CCS: Marsh & 2018)

2023 Comprehensive Tests of CCS for Multigroup Dialog (METHODS, return to default CalCurve)

2023 Amendments to Multigroup Dialog: CCS made functional

2023 Extension of CCS-Dendro-Testfile: N=16 ¹⁴C-ages for Dietfurt HaC-HaD (Agerskov Rose & 2022)

2023 Amendments to Database: Added CCS-Dendro-Testfile with 3 Hallstatt sites (Billamboz 2008)

2023 Amendments to Database Format: New Database Legend with description of CCS Fields

2023 Amendments to Database Dialog: OK Button greyed/inhibited (red edge) if no data selected

2023 New Calibration Curve Select Set: Drouzet 1 V1 (N=178, 14377-14001 calBP) Bard & 2023

2023 Amendments to CalKN: Timescale Switch [calBP] or [calBC/-AD] is written to Excel Spreadsheet

2023 Amendments to CalKN: Calibrated Ages/STDs written to Excel Spreadsheet

2023 Amendments to CalKN: Button EDIT (ASCII) replaced by Button VIEW (Excel Spreadsheet)

2023 Amendments to CalPal: Multigroup Dialog enhanced to support CCS Calibration

2023 Amendments to CalPal: Multimethod Dialog removed (replaced by amendments to Multigroup)

2023 Assembly of Edition 2023.12 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2023 Update ¹⁴C-Data: Israel, Tell Gezer, Late Bronze Age to Iron Age II (N=35), Webster 2023

2023 New ¹⁴C-Database: Epipal N Europe (N=6478 dates; M=2120 sites, 100% georef), Hoebe & 2023

2023 Amendments to Williams et al., (2014) ¹⁴C-Database for Australia: added CCS fields

2023 Amendments to Goldberg et al., (2016) ¹⁴C-Database for South America: added CCS fields

2023 Amendments to CalTable: CalCurve Error Fields Hidden for Error-Free Linear Calibration

2023 Amendments to CalTable: Red Warning Field added when non-cal data is calibrated

2023 Amendments to Chronology Composer: Colour Barcode for each date only for choice of CCS

2023 Amendments to Chronology Composer: Colour Barcode for all METHODS introduced

2023 Bug Fix in Chronology Composer: Radiobutton 'Dates'- First run corrected (undefined cal-errors)

2023 Bug Fix in Chronology Composer: Radiobutton 'Sort by Oldest Age' corrected (made functional)

2023 Further Tests of CCS with focus on METHOD=LatitudeCCS (Zonal Latitude CCS)

2023 Check on Size of Zipped Exe: presently, 123 MB expands to 298 MB (without literature & progs)

2023 New ¹⁴C-Database: Australia AustArch3, ¹⁴C & TL, ESR, OSL (N=4896), Williams & 2014

2023 New ¹⁴C-Data: Ios (Cyclades), Skarkos, Early Bronze Age, (N=7), Maniatis & 2023

2023 New ¹⁴C-Data: Jordan, Zahrat adh-Dhra, Middle Bronze Age, (N=+9), Fall & 2023

2023 New Function in CalCurve Comparer: Added MAP-Button for Zonal CalCurve Construction

2023 New Function in CalCurve Comparer: Added HELP-Button for Zonal CalCurve Construction

2023 Comprehensive Tests of CCS for mixed METHODS (Zonal-Latitude, CalNH-SH, Historic,Dendro)

2023 New Function in CalCurve Comparer: Storage of basic Zonal CalCurve for any given N-S Latitude

2023 New Function in CalCurve Comparer: Construction of Zonal CalCurve via N-South Latitude Menu

2023 Amendments to CalCurve Comparer: Correlated Menus for N-S Latitude <-> N-S Percentages

2023 Amendments to Installation: Added default Base ¹⁴C-CalCurve (Delta ¹⁴C)

2023 Amendments to all CCS-Routines: Construction of default Base ¹⁴C-CalCurve (Delta ¹⁴C)

2023 Assembly of Edition 2023.11 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2023 Amendments to CalKN Dialog: Cal-Age/STD Rounding taken out for Calibration Curve Switching

2023 Check on Initialisation of CalKN Dialog for Zonal-Latitude Calibration Curve Switching

2023 Check on CalTable Dialog: Functionality of CalCurveError and FineSmoothing in Bohm fields

2023 Check on CalTable Dialog: Check CalCurveError = ON for return from Bohm fields

2023 Amendments to all CCS-Routines: Counts for Zonal-Latitude CCS displayed and stored

2023 New Function in Chronology Dialog: Rapid Zonal Latitude Switching installed

2023 Amendments to all CCS-Routines: Added METHOD ('LatitudeCCS') for Zonal-Latitude CCS

2023 Amendments to CalCurve Comparer Dialog: Simplified NH-SH CCS for Zonal Latitude Switching

2023 Amendments to CalCurve Comparer Dialog: Optional Update of mixed NH-SH CalCurve

2023 Check on Max Error of BP-> $\Delta^{14}\text{C}$ -Transfer and Retour Calculations $\Delta^{14}\text{C}$ ->BP: Max ± 0.001 BP

2023 Amendments to CalCurve Comparer Dialog: Added NH and SH Calcurve BP-> $\Delta^{14}\text{C}$ -> BP Transfer

2023 Amendments to CalCurve Comparer Dialog: Added Menu Fields for NH & SH CalCurve Mixing
2023 Amendments to Chronology Dialog non-CCS: Summed Barcode Graph recognises all filters
2023 Amendments to Chronology Dialog CCS : Summed Barcode Graph recognises all filters
2023 New Function in Chronology Dialog: Summed BarCode Graph added to non-CCS analysis
2023 New Function in Chronology Dialog: Save Climate Context File for CCS Summed BarCode Graph
2023 New Function in Chronology Dialog: Edit Climate Context File for CCS Summed BarCode Graph
2023 New Function in Chronology Dialog: Summed BarCode Graph
2023 Amendments to CalCurve Comparison Dialog: Added Colour Legend for the selected CalCurves
2023 New Climate Record added to Installation: NE Brazil 0-3500 calBP $\delta^{18}\text{O}$ (Utida & 2023)
2023 Assembly of Edition 2023.10 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Comprehensive CCS-comparison of CalPal-Diagrams: CCS-precision = ± 1 yr (CalScale)
2023 New Function in Calibrate Database Dialog : Excel-Spreadsheet Read/Write of CCS-METHODS
2023 New Function in Calibrate Database Dialog : CSV-Spreadsheet Read/Write of CCS-METHODS
2023 New Function in Chronology Dialog : Menu Item for METHODS (List of CalCurves)
2023 New Function in Floating Spreadsheet Data Viewer: Menu Item for CCS-METHODS
2023 New Function in Floating Spreadsheet Data Viewer: Menu List with Lists of Database Variables
2023 New Function in Chronology Dialog: Floating Spreadsheet Data Viewer (Excel, CSV, ASCII)
2023 Amendments to Installation: Added HelpFile for CalTable with description of Historical Projects
2023 Amendments to Installation: Added Example Excel File for CalTable Dialog Historical Projects
2023 Amendments to Installation: Added directory c:\calpal_a\database\historical_projects
2023 New Function in CalTable: Non-Cal Switch for Climate and DataList Graphs installed
2023 Updated Past 4.14 Function in floating interface of CA-dialog: External Call to Past 4.14
2023 CalTable Dialog: Tested Import of Dendro-Dates from Database and Rectangular 1 yr-Error
2023 New Function in CalTable: Comprehensive Switch-Back Test from Non-Cal to ^{14}C -Calibration
2023 New Function in CalTable: Comprehensive Change of Cal/Non-Cal File Output Terminology
2023 New Function in CalTable: Comprehensive Change of Cal/Non-Cal Field Output Terminology
2023 New Function in CalTable: Comprehensive Hide/Enable/Disable of Non-Cal Dialog Fields
2023 New Function in CalTable: Comprehensive Hide/Enable/Disable of Normalisation Fields
2023 New Function in CalTable: Introduction of Non-Cal Chronology (Error-free Calibration)
2023 Assembly of Edition 2023.09 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Comprehensive CCS Test Program, with Protocoll of CCS Functionality for 4 Dialogs
2023 Update to Winteracter 15.0e
2023 Calibrate Database: Added CCS-fields (Checkbox, Button for editing CCS-results, CCS-Help)
2023 CalKN Dialog: Added CCS-fields (Checkbox, Button for editing CCS-results, CCS-Help)
2023 Database Calibration: Added CCS-fields (Checkbox, Button for editing CCS-results, CCS-Help)
2023 Chronology Composer: Annual-scale alignment (unification) of CCS-results for all chronologies
2023 Database Calibration: Dialog tested for CCS (read & store)
2023 CalTable (Database Import): Spreadsheet for Open/SaveAs Tested for CCS-METHOD
2023 Chronology Composer: Sites-Chronology. CalAge-Output unified to CalTable/CalKN for CC=19
2023 Chronology Composer: Sites-Chronology. Menu Item to view CCS individual dates.
2023 Chronology Composer: Sites-Chronology. Added CCS Switch Overview on Graph
2023 Chronology Composer: Sites-Chronology. Added CCS Switch Overview to Run Documentation
2023 Database Spreadsheet: CCS-METHOD functionality extended to mouse-click FILTER
2023 Database Spreadsheet: CCS-METHOD functionality extended to mouse-click FILTER
2023 Database Spreadsheet: CCS-METHOD functionality extended to import/export of ASCII/CSV
2023 [These CC-definitions are to be refined to account for Intertropical Convergence Zone]
2023 Amendments to ^{14}C -Databases: CCS-METHOD defined as SHemisphere for LATITUDE<0 .0000
2023 Amendments to ^{14}C -Databases: CCS-METHOD defined as NHemisphere for LATITUDE \geq 0 .0000
2023 Database Spreadsheet Dialog: Grid functions extended to include CCS-METHOD
2023 Database Spreadsheet Menu File Open: CCS-METHOD imported and written to Grid
2023 Database Import: Systematic Check of Grid before introducing CCS-METHOD as Grid variable
2023 Chronology Composer: Bubble-Up Help added to the new CCS-Project Buttons
2023 Assembly of Edition 2023.08 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 New CalCurveSwitch (CCS) functions to support construction of global ^{14}C -chronologies.
2023 Amendments to Installation: Added directory c:\capal_a\database\CCS_Projects
2023 Amendments to Chronology Composer: Bubble-Up Help added to the new CCS-Project Buttons
2023 Amendments to Chronology Composer: New Checkbox steers Hidden/Enabled for all CSS-fields
2023 Amendments to Chronology Composer: New Buttons for CSS-Projects (DATA, RUNTIME ,HELP)

2023 Amendments to Chronology Composer: Added Checkbox for Selection of CCS-Projects

2023 Amendments to CalTable: Bubble-Up Help added to Button for error-free linear calibration

2023 New Function in CalTable Dialog (Bohm fields) : Button to select error-free linear CalCurve

2023 "Atmospheric" Calcurve (CalCurve Nr 20) is renamed "Atmospheric (Suigetsu)"

2023 IntCal20 Marine CalCurve (CalCurve Nr 21) added to installation

2023 IntCal20 Marine CalCurve constructed using ODBC CalData Import Dialog (data: Heaton & 2020)

2023 Feasability studies with Chronology Dialog for automated sample-specific CCS

2023 Theoretical considerations for automated sample-specific switch of CalCurve with ¹⁴C-databases

2023 Amendments to Fortran Compiler: Added Information Module callede "calpal_info.f90"

2023 Amendments to CalPal Info Module: Feasability Studies on Automated CalCurve Switching (CCS)

2023 Amendments to Fortran Compiler: Added Information Module callede "calpal_info.f90"

2023 Hypothesis: For Global ¹⁴C-studies, even elementary CCS might support a wide variety of tasks

2023 Conclusion 1: Automated CCS is possible for (basic) North-South Hemispheric ¹⁴C-Databases 2023

Conclusion 2: Automated CCS is possible for (elementary) Atmospheric-Marine ¹⁴C-Databases 2023

Conclusion 3: Automated CCS is possible for (mixed) ¹⁴C- & Non-Radiocarbon Databases

2023 Conclusion 4: Automated CCS is simultaneously possible for all 3 types of Archaeological CCS

2023 Conclusion 5: There will be no required changes to the structure of the present ¹⁴C-database:

2023 In overall conclusion, automated CCS would simultaneously resolve a number of tasks.

2023 -> N-S Hemisphere Info can be derived from given LATITUDE/LONGITUDE coordinates.

2023 -> ¹⁴C-Reservoir Info (Terrestrial/Marine) can be derived from given MATERIAL/SPECIES lists.

2023 -> Mixing of ¹⁴C- and Non-Radiocarbon Data can utilize a linear CalCurve, based on METHOD.

2023 -> Default CCS for missing values (< 5%) would be N-Hemisphere/Terrestrial

2023 Conclusion 6: For future extensions, automated CCS is best achieved with a CCS-Utility-Dialog

2023 Assembly of Edition 2023.07 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2023 ¹⁴C-Database: Europe-NearEast-Africa Database added to installation (xlsx) 69522 dates

2023 Added ¹⁴C-Database: South Africa N=2260 Dates, 517 Sites, 100.0 % geo (Loftus & 2019)

2023 Added ¹⁴C-Database: Egyptian Dynastic (+124 dates) Kutschera 2022 (pers comm)

2023 Bug Fix in CalTable Dialog: Corrected Nr of Dates in Spreadsheet (previously wrong double Nr)

2023 Amendments to Database Import: Corrected Notification for csv-format Database Import

2023 ¹⁴C-Database: Europe-NearEast-North-Central Africa calibrated & added (xlsx,csv) to installation

2023 New ¹⁴C-Database: Europe-NearEast-North-Central Africa (67260 Dates)

2023 Added ¹⁴C-Database: Central Africa N=1663 Dates, 531 Sites, 98.6 % geo (Dirk Seidensticker)

2023 New ¹⁴C-Data: Turkey, Troy, Early Bronze Age, (N=+14), Easton and Weninger 2023)

2023 ¹⁴C-Database Europe-NE-NA (shortlived) covers N=21180 dates, 4630 sites, 97.4 % georef

2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65574 dates, 12854 sites, 96.6 % georef

2023 Substantial additions, corrections & refinements to Europe-NearEast-NorthAfrica ¹⁴C-database

2023 Amendments to Short Lived Sample (Database Selection List): sherd fat

2023 New ¹⁴C-Data: Spain, Megalithic, (N=+126), (Linares-Catela 2022)

2023 New ¹⁴C-Data: Turkey, Çatalhöyük East, Late Neolithic, (N=+20), (Casanova & 2020)

2023 Assembly of Edition 2023.06 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2023 New Function in Literature Treeview Dialog: Added PDF-Format Open File-Select Menu

2023 New Function in Literature Treeview Dialog: Added ASCII-Format Open File-Select Menu

2023 New Function in Literature Treeview Dialog: Added Graph Export Menu (default: Clipboard) 2023 New Function in Literature Treeview Dialog: Clipboard Graph Retrieval & File Storage

2023 Amendments to Literature Treeview Dialog: OCR-Character Recognition for all PDF files

2023 Rapid Site Papers (N=11) pdf & links, added to Literature Treeview Dialog

2023 Rapid Climate Change Papers (N= 8) pdf & links, added to Literature Treeview Dialog

2023 Santorini Papers (N= 2) pdf & links, added to Literature Treeview Dialog

2023 Troy Papers (N= 6) pdf & links, added to Literature Treeview Dialog

2023 New Function in Literature Treeview Dialog: Clipboard Text contents hown in separate Window

2023 New Function in Literature Treeview Dialog: Clipboard File Retrieval & File Storage

2023 New Function in Literature Treeview Dialog: Rapid OnLine Literature Retrieval

2023 New Function in Literature Treeview Dialog: Rapid Literature View

2023 ¹⁴C-Age Calibration Papers (N= 10) pdf & links, added to Literature Treeview Dialog

2023 New Directory c:\calpal_a\help\literature

2023 Research Papers added to Literature Treeview Dialog

2023 New Literature Treeview Dialog added to CalPal Root Menu

2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65758 dates, 12822 sites, 96.0 % georef

2023 New ¹⁴C-Data: Israel, Jericho, Bronze Age, (N=+11), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Tell es-Safi, Bronze Age, (N=+28), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Hazor, Bronze Age, (N=+3), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Tel Dan, Bronze Age, (N=+4), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Tel Batash, Bronze Age, (N=7), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Ashkelon, Bronze Age, (N=+3), (Webster & 2021)
2023 New ¹⁴C-Data: Jordan, Tell Abu Al-Kharaz, Bronze Age, (N=+19), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Gezer, Bronze Age, (N=+55), (Webster & 2021)
2023 New ¹⁴C-Data: Israel, Tel Lachish, Bronze & Early Iron Age, (N=+64), (Webster & 2021)
2023 New ¹⁴C-Data: Iraq, Kurd Qaburstan, Bronze Age, (N=12), (Webster & 2023)
2023 Upload of Edition 2023.5 to Zenodo Repository: <https://zenodo.org/record/7769791>
2023 Assembly of Edition 2023.05 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Amendments to CA Pottery-Series: Added Menu to view Furumark shape classification
2023 Amendments to CA Pottery-Series: Added Menu to view Blegen shape classification
2023 Amendments to CA Pottery-Series: Prompt screen update for change in requested series
2023 Amendments to CA Pottery-Series: Thumbnail file-storage adapted to extended CA-names
2023 New Climate Record added to Installation: Zagros RCC Katakhor Cave $\delta^{13}\text{C}$ (Andrews & 2020)
2023 New Climate Record added to Installation: Zagros RCC Katakhor Cave $\delta^{18}\text{O}$ (Andrews & 2020)
2023 New Climate Record added to Installation: Arctic Sea Ice 0-9.5 ka calBP Funder & 2011)
2023 New Climate Record added to Installation: Daihai Lake Levels 0-12.5 ka (Goldsmith & 2022)
2023 Assembly of Edition 2023.04 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 CA-Dialog & CA-PotterySeries: Tests of all (N=18) CA-Projects for CA-Table-Inversion
2023 New Default ¹⁴C-Database 'Europe.dat' (shortlived): N=21192 dates, 4617 sites, 96.9% georef
2023 New ¹⁴C-Data: Serbia, Svinjarička Čuka, Starčevo (N=+28), (Horejs & 2022)
2023 Amendments to CA Dialog: Determination of individual CA- settings for all CA-Projects
2023 Amendments to Pottery Series Dialog: Added Numeric Output of Trackbar for Battleship Width
2023 Amendments to CA Dialog: Project Log extended to include Scattergram and Pottery Series
2023 Amendments to CA Pottery-Series: Max Col/Row names length expanded (max 7 Characters)
2023 Amendments to CA Pottery-Series: Max Col/Row names length expanded (max 7 Characters)
2023 Amendments to CA Scattergram: Max Col/Row names length expanded (max 20 Characters)
2023 New Function in CA Dialog: Button to Invert rows/cols of CA-Table
2023 Amendments to CA Dialog: Menu Item to Edit inverted CA-file
2023 Amendments to CA Dialog: Checkbox to make inverted CA-Table
2023 Bug Fix in CA Dialog: Column expansion in Excel CA-Import Grid reported (avoids seldom crash)
2023 Amendments to CA Dialog: New CA-Project Kastanas, Schichten 19 bis 11 (Jung, 2002)
2023 Amendments to CA Dialog: CA-Scattergram: Row and Column Texts expanded to Character*20
2023 Amendments to CA Dialog: Pulldownmenus: Row and Column Texts expanded to Character*20
2023 Amendments to CA Database Format: Row and Column Headings expanded to Character*20
2023 Amendments to CA Dialog: Mycenaean Siteproject (Furumark/Mountjoy comparison)
2022 Update to Winteracter 15.0d
2023 Amendments to CA Dialog: CA-Project 18 Defined as Mycenaean Master Chronology
2023 Amendments to CA Dialog: Lower Box. Row and Col Buttons, Selection/Size/Number Bug Fix
2023 Amendments to CA Dialog: New CA-Siteproject Mitrou LHIII B2 Late, LP782 (Vitale, 2020)
2023 Amendments to CA Dialog: New CA-Siteproject Mitrou LHIII B1 Early, LP784 (Vitale, 2020)
2023 Amendments to CA Dialog: New CA-Siteproject Tsoungiza LHIII A2 (Thomas, 2011)
2023 Amendments to CA Dialog: New CA-Siteproject Tsoungiza LHIII B1 (Thomas, 2005)
2023 Amendments to CA Dialog: New CA-Siteproject Mycenae LHIII B1 (French, 1966)
2023 Amendments to CA Dialog: New CA-Siteproject Tiryns Stadt-NO, Phase 1-5 (Stockhammer 2007)
2023 Assembly of Edition 2023.03 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Amendments to CA Dialog: Single-Select Row and Col Checkboxes now work independently
2023 Amendments to CA Dialog: Selection of Colour & Symbol for Cols immediately invoked
2023 Amendments to CA Dialog: Selection of Colour & Symbol for Rows immediately invoked
2023 Bug Fix in CA Dialog: On return from Pottery Series dialog, the Shape-Names are restored
2023 Bug Fix in CA Dialog: On return from Pottery Series dialog, the Unit-Names are restored
2023 Amendments to CA Dialog: New CA-Project Blum 9 Phases Troia IV-V Blegenised
2023 Amendments to CA-Project Furumark All Sites: Troy VI d, VI e, VI f, VI g, VII a, VII b1, VII b2
2023 Amendments to CA Dialog: New CA-Project Furumark All Sites
2023 Amendments to CA Dialog: New CA-Project Tiryns Stadt Nordost 5 Phases (Stockhammer 2007)

2023 Amendments to Chronology Composer: Bubble Up Help for Site Map Buttons
2023 Amendments to Chronology Composer: Added Buttons for Mapping of Georeferenced Sites
2023 Default ¹⁴C-Database 'Europe.dat' : N=21164 dates, 4618 sites, 96.9% georef
2023 Default ¹⁴C-Database 'Europe.dat' changed to include only short-lived samples
2023 Multiclimature Record File added to Installation: 2nd 7.4 ka calBP RCC record compilation
2023 New Climate Record added to Documentatiol: SST MD90-917 Adria RCC (Sieni & 2013)
2023 New Climate Record added to Installation: SST MD90-917 Adria RCC (Sieni & 2013)
2023 New Climate Record added to Documentation: North Italy Dry/Wet (Regattieri & 2014)2023 2023 New
Climate Record added to Installation: North Italy Dry/Wet (Regattieri & 2014)
2023 New Climate Record added to Documentation: Nova Grgosova Cave $\delta^{13}\text{C}$ (Surić & 2021)
2023 New Climate Record added to Installation: Nova Grgosova Cave $\delta^{13}\text{C}$ (Surić & 2021)
2023 Amendments to Reservoir Explorer: Two New Select Files GaussWM Results for LBK Periods I-V
2023 New GaussWM Dataset, LBK Meier Arendt Periods I-V
2023 Amendments to CA Dialog: Added CA-Subproject äLBK-Housegenerations (Strien 2018).
2023 Bug Fix GaussWM Dialog: corrected graphic output of data numbers with 3 digits
2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65496 dates, 12810 sites, 95.9 % georef
2023 New ¹⁴C-Data, Linearbandkeramik-Phases, Mainly Elsaß, Shortlived, N=60 (Denaire & 2021)
2023 Assembly of Edition 2023.02 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Amendments to SETTINGS Dialog: Simplified CA-Tab, added Help.
2023 Amendments to CA Dialog Max number of CA-Projects extended from 20 to 30
2023 Amendments to CA Dialog: New CA-Project äLBK (Strien 2018).
2023 Amendments to Filter-List of Short-Lived Samples: Added Material 'fatty acids'
2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65440 dates, 12805 sites, 95.9 % georef
2023 New ¹⁴C-Data, Linearbandkeramik-Phases, Fatty Acids in Sherds, N=28 (Casanova & 2021)
2023 New ¹⁴C-Data, Spain, Iberian Megalithic, Panoria cemetery (N=54); Jiménez & 2022)
2023 New ¹⁴C-Data, Thessaly, Middle Neolithic, Imvrou Pigadi (N=8); Kyparissi-Apostolika 2022)
2023 New Climate Record added to Documentation: Huangyuan Cave $\delta^{18}\text{O}$ (Duan & 2023)
2023 New Climate Record added to Documentation: Buraca Gloriosa Cave $\delta^{18}\text{O}$ (Thatcher & 2023)
2023 New Climate Record added to Installation: Buraca Gloriosa Cave $\delta^{18}\text{O}$ (Thatcher & 2023)
2023 Amendments to CA Dialog: Added Help for Construction of Added CA-Projects
2023 Amendments to CA Dialog: New CA-Project Sissi MMIIIA-LMIB (Mathioudaki & Fantuzzi).
2023 New Climate Record added to Documentation: Mendukilo ¹⁸O (Wormull & 2023)
2023 New Climate Record added to Installation: Mendukilo ¹⁸O (Wormull & 2023)
2023 Assembly of Edition 2023.01 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Amendments to Pottery Series Dialog: Added Quantitative Polynomial Arc Scale (0-100% [rel])
2023 Amendments to Pottery Series Dialog: Polynomial Arc Scale Barcode Sequence Inversed
2023 Amendments to Pottery Series Dialog: Autoshift-Legend for Rows and Columns in Scattergrams
2023 Amendments to Pottery Series Dialog: Added Checkbox to show selected Col on Scattergram
2023 Amendments to Pottery Series Dialog: Added Checkbox to show selected Row on Scattergram
2023 Amendments to Pottery Series Dialog: Independent Rotation of Polynomial Line Graphs
2023 Amendments to Pottery Series Dialog: Independent Shift of Polynomial Line Graphs
2023 Amendments to Pottery Series Dialog: Added Checkbox for Polynomial Line Graph
2023 New Climate Record: Huangyuan Cave annual $\delta^{18}\text{O}$ 7982-8371 calBP (Duan & 2023)
2023 Assembly of Edition 2023.01 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2023 Comprehensive Testing of Pottery Series Dialog
2023 Amendments to Pottery Series Dialog: Refined CA-Table Mirror Functions (Up-Down,Left-Right)
2023 New Globalmapper Dialog: Santorini Tsunami Project SRTM-Map added to preview
2023 New Globalmapper Dialog: Santorini Tsunami Project SRTM-Map added to installation
2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65158 dates, 12770 sites, 95.9 % georef
2023 New Multiclimatures file added to installation: Michelsberg.mcf (with SPD, Sites, Periods)
2023 New ¹⁴C-Data, Germany, Klingenberg, Michelsberg, (N=81); Seidel & 2016)
2023 Amendments to GaussWM Dialog: IMSL (old) Chi-Square routine GAMMQ replaced by CHIDF
2023 Amendments to GMCWM Dialog: List and Bar Number checkbox selection (changed to default)
2022 Amendments to GMCWM Dialog: Marker Symbols removed from Line Plots in Statistics Box
2023 New ¹⁴C-Data, Israel, Motza, FPPNB (N=12); (Vardi & 2022)
2022 Amendments to Reservoir Explorer Dialog: Corrected Minoan LMIB-LMII GaussWM results
2022 Amendments to GaussWM Dialog: Corrected Minoan LMIB-LMII Data (Manning 2006/2013)
2023 New Climate Record: Siso Cave ¹⁸O (Cheng & 2020)

2023 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=65077 dates, 12770 sites, 95.9 % georef
2023 New ¹⁴C-Data, Horse, Multiperiod, (N=158; Orlando & 2021)
2023 Amendments to Pottery Series Dialog: Added Bubble-Up Help texts
2023 New ¹⁴C-Data, Cyprus, Bronze Age, Politiko-Troullias (N=20; Falconer & 2023)
2022 New ¹⁴C-Data, Israel, Bronze Age, EBIV, Burials (N=22; Lev & 2022)
2022 New ¹⁴C-Data, Crete, Bronze Age, Hagios Charalambos Cave Burials (N=10; Neumann & 2022)
2022 Assembly of Edition 2022.08 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 Amendments to Pottery Series Dialog: Automatic project switch of Thumbnail graphs
2022 Amendments to Pottery Series Dialog: Thumbnail graphs added for Furumark Shapes
2022 Data added to ¹⁴C-Database, Georgia, Early Neolithic, Kicik Teper (N=17; Palumbi & 2021)
2022 GaussWM set added to wiggle matching directory. Bilecik-Bahçelievler (N=20; Fidan & 2022)
2022 Data added to ¹⁴C-Database, Turkey, Early Neolithic, Bilecik-Bahçelievler (N=20; Fidan & 2022)
2022 Amendments to Pottery Series Dialog: Identical Thumbnail routine used for all Time Series
2022 Amendments to CA Dialog: New CA Project Nr.12 Mountjoy (1999) Regional Mycenaean Pottery
2022 Amendments to CA Dialog: Inverted Mountjoy (1999) CA-Matrix
2022 Amendments to CA Dialog: Added CA Database Mountjoy (1999) Regional Mycenaean Pottery
2022 Amendments to Troy VI-VII CA database: Added phase spreadsheet
2022 Bug Fix in CA Dialog: Correction of unreadable row names in lower box (Projects 4-7)
2022 Bug Fix in CA Dialog: Correction of unreadable column names in lower box (Projects 4-7)
2022 New Function in CA Pottery Series Dialog: Checkbox Show Shape Info On/Off
2022 Amendments to Pottery Series Dialog: Identical Thumbnail routine used for all Time Series
2022 Amendments to Pottery Series Dialog: Thumbnail routine with optimised sizing & positioning
2022 Amendments to CA Dialog: Refined CA Database for Troy IV-VII (Excel)
2022 New CA-Subdirectory added to installation: c:\calpal_a\furumark_ca\data_projects
2022 New CA-Project: Michelsberg, courtesy Birgit Höhn (Data) & Georg Roth (xls-Database)
2022 New Function in CA Pottery Series Dialog: Variable Thumbnail graph size
2000 New Function in CA Pottery Series Dialog: Thumbnail graph errors added to Protocoll file
2000 New Function in CA Pottery Series Dialog: Added Protocoll file
2000 New Function in CA Pottery Series Dialog: Show EBA & MBA Blegen Shape Thumbnail graphs
2022 Amendments to Installation: Added EBA & MBA Blegen Shape Thumbnail graphs (N=270)
2022 Amendments to CA Pottery Series Dialog: Printer Driver now selects correct Width/Height
2022 Added ¹⁴C-Ages, Soimus-Telegi (Romania), Starčevo-Criş (N=6), (Malaxa & 2022)
2022 Amendments to Installation: Added High-Resolution Blegen Shape Troy I-V and VI-VII View files
2022 Amendments to CA Dialog: Added View Menu for BlegenShapes Troy IV-VII
2022 Amendments to CA Dialog: Added View Menu for Blegen Shapes Troy I-V
2022 Amendments to All Dialogs: PlotConv Window AlwaysOnTop
2022 Zenodo (CERN) Repository Info added to CheckForUpdate-Dialog with added Clipboard Button.
2022 Assembly of Edition 2022.07 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 Amendments to Pottery Series Dialog: Export Window set as AlwaysOnTop
2022 Screen Size of Age-Age Composer Dialog adjusted to fit 2560x1600 pixel screen
2022 Update to Winteracter 15.0c
2022 Added ¹⁴C-Database N-America (N=51288 dates, 9556 sites, 100.0 % georef), (Byrd & 2022)
2022 Added ¹⁴C-Database China (N=4999 dates, 1047 sites, 99.8 % georef),(Byrd & 2022)
2022 Bug Fix in Globalmapper Dialog: Export of Lat/Long coordinates extended from F8.4 to F9.4
2022 New Function in Pottery Time Series Dialog: Bubble-Up Help for many of the Dialog-Items
2022 New Function in Pottery Time Series Dialog: Variable CA-Rotation Angle (immediate response)
2021 New Climate Record: Egypt. Pollen Derived Nile Level at Giza (Sheisha & 2022)
2022 Assembly of Edition 2022.06 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=64824 dates, 12683 sites, 95.9 % georef
2022 Added ¹⁴C-Ages, Thessaly, Early Neolithic (N=11)(Krahtopolou & 2022)
2022 Added ¹⁴C-Ages, Romania, Neolithic (N=12)(Luca & 2022)
2022 Added ¹⁴C-Ages, Israel EB-IV, (N=6) (Lev & 2020)
2022 Update to Winteracter 15.0b
2022 New Function in Pottery Time Series Dialog: Optional Time Series for Factor 1 Rotation.
2022 New Function in Pottery Time Series Dialog: Optional Time Series for Polynomial Rotation.
2022 New Function in Pottery Time Series Dialog: Optional Time Series for Factor 1 Projection.
2022 New Function in Pottery Time Series Dialog: Graphic Scaling for Data Tables (5 graphic options)
2022 New Function in Pottery Time Series Dialog: File Edit Menus for Data Tables

2022 New Function in Pottery Time Series Dialog: Variable Letter Size for Row & Col Names
2022 New Function in Pottery Time Series Dialog: Row Names added to Vertical Scaling
2022 New Function in Pottery Time Series Dialog: Vertical Scaling
2022 New Menu Function in Pottery Time Series Dialog: Radiobuttons for Display (5 graphic options)
2022 New Menu Function in Pottery Time Series Dialog: Zoom
2022 New Toolbar Function in Pottery Time Series Dialog: Export/Print
2022 Update to Winteracter 15.0a
2022 New Function in Pottery Time Series Dialog: CA-Data sorted on Row-Scores (Factor 1)
2022 New Dialog introduced: Pottery Time Series
2022 New Function in CA floating interface dialog: External Call to Past 4.08
2022 New Function in CA Dialog: Added Button to call floating interface dialog
2022 New CA-Subdirectory added to installation: c:\calpal_a\furumark_ca\data_varna
2022 New CA-Project: Varna Cemetery, Varna_Seriationsbasis.xls, courtesy Raiko Krauß (Tübingen)
2022 Assembly of Edition 2022.05 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 New Climate Record: Kocain Cave SW Turkey, Speleothem $\delta^{18}\text{O}$ (Jacobson & 2021)
2022 New Climate Record: Wintimdouine Cave 0-12 ka calBP, Speleothem $\delta^{18}\text{O}$ (Sha & 2019)
2022 Bug Fix in CA Dialog. Parabola correctly restored following trackbar shifts (Rows, Cols, UpDown)
2022 Added ^{14}C -Ages, Çeşme Bağlararası, LMIA-Tsunami (N=9) (Şayoğlu & 2022)
2022 New Climate Record: Mean SO_2 Greenland (GISP2 & NGRIP: 1700-1500 BCE) (Pearson & 2022)
2022 New Climate Record: Mean SO_2 Antarctica (WD & EDML: 1700-1500 BCE) (Pearson & 2022)
2022 ^{14}C -Database Europe-NearEast-NorthAfrica covers N=64798 dates, 12660 sites, 95.5 % georef
2022 Comprehensive Tests of CalPal 2022.4 under win11/10
2022 Assembly of Edition 2022.04 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 Added ^{14}C -Ages, Khirbat Iskandar, Jordan (N=12) EB III/IV Transition (Hall 2022)
2022 Amendments to CalPal: plotconv Winteracter15 version re-compiled with AlwaysOnTop Flag
2022 Amendments to CalPal: Setup64 Winteracter14 version replaced by Winteracter 15 Version
2022 Comprehensive Tests of CalPal 2022.3 (win10/11)
2022 Update to Winteracter 15 compiled and tested
2022 Assembly of Edition 2022.03 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 Win11 Version compiled and tested
2022 New Site in Furumark CA: LMIIIA:2 pottery, early floors Kommos House X (Rutter)
2022 New Site in Furumark CA: LHIIIB:1 pottery, Tsoungiza, pit 1 (Thomas 2005)
2022 Amendments to Reservoir Explorer Dialog: Added Minoan LMIB-LMII GaussWM results
2022 Amendments to GaussWM Dialog: Added Minoan LMIB-LMII GaussWM model (shortlived)
2022 Added ^{14}C -Ages, Damjili Cave (N=17) Azerbaijan, Meso-Neo-Transition 8.2 ka (Nishiaki 2022)
2022 New Function in CA Dialog: Introduction of Arc Scale (0-1000) for arc-length sorted CA scores
2022 New Function in CA Dialog: File of arc-length sorted CA scores with method documentation
2022 New Function in CA Dialog: CA-col polynomial arc-length scaling (Furumark/Troy CA-projects)
2022 New Function in CA Dialog: CA-row polynomial arc-length scaling (Knossos CA-project)
2022 New Function in CA Dialog: Checkox for vertical projection of CA-scores onto Polynomial
2022 New Function in CA Dialog: Visual fine tuning of RCURV parabola with 3 numeric coefficients
2022 Update to Winteracter 14.10e
2022 New Function in CA Dialog: Visual Fine Tuning of RCURV Parabola & Documentation of Method
2022 New Function in CA Dialog: Menu Table with Documentation on-Demand of fitted Polynomial
2022 New Function in CA Dialog: Radiobutton Choice of Polynomial Order (2,3,4,5,6) in RCURV
2022 New Function in CA Dialog: IMSL RCURV Fit to CA, including Rotation and Shift of CA-system
2022 New Function in CA Dialog: Radiobutton Choice of CA Factor 2 or 3 or 4 or 5 on Y-Axis
2022 Amendments to CA Dialog: Checkbox CA Presence/Absence (1/0) runs immediately
2022 Amendments to CA Dialog: CA-Project Excel View Window AlwaysOnTop
2022 Amendments to CA Dialog: Coupling of Graphic Selections and CA-Coordinate System Rotation
2022 Amendments to CA Dialog: High Resolution ($1/10^\circ$) CA-Coordinate System Rotation
2022 Amendments to Chronology Composer: Screen Refresh following PDF Print removed
2022 New Functions in GaussWM Dialog: Mouse Screen Age measurements
2022 New Functions in Reservoir Explorer: Date Bar Numbers with variable Letter Size
2022 New Functions in GaussWM Dialog: Date Bar Numbers with variable Letter Size
2022 New Functions in Reservoir Explorer: Date List & Graph Numbers with variable Letter Size
2022 New Functions in GaussWM Dialog: Date List & Graph Numbers with variable Letter Size
2022 Amendments to GaussW

2021 Amendments to Installation: Added 660 BCE Miyake event as shade (Sakurai & 2020)
M Dialog: Default Path for new select file changed to c:\calpal\select
2022 Amendments to GaussWM Dialog: Added Depth Radiobutton for higher incremental resolution
2022 Bug Fix in GaussWM Dialog: Refresh of graphics for no iterations on single and multiple runs
2022 Assembly of Edition 2022.02 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2022 Amendments to CalPal Export: Recompilation of PlotConv with Window Flag AlwaysOnTop
2022 Amendments to CA Dialog: Automated setting of chosen CA-Project variables from Project Log
2022 New Function in CA Dialog: Added Listmatch for rapid CA-Project & Log file variable selection
2022 New Function in CalPal: CA Project Log file (c:\calpal_a\CA_Project.log) added to Installation
2022 New Function in CalPal: CA Default Log file (c:\calpal_a\CA_Defaulty.log) added to Installation
2022 New Function in Utilities Dialog: CA TAB for Correspondence Analysis Project Management
2022 Amendments to CA Dialog: Added Troy I-V Schliemann CA-Database (Easton & Weninger 2018)
2022 Amendments to CA Dialog: Added Troy I-V Refined III CA-Database (Easton & Weninger 2018)
2022 Amendments to CA Dialog: Variable Text-Size and Text-Distances for Lower Graphic Box
2022 Amendments to CA Dialog: Automated loading of CA project-specific optimal graphic settings
2022 Added Pottery CA-DB: Mountjoy (1997). Blegen (Troy VIF-VIG-VIH)->Furumark (LMI-SubMyc) 2022
Amendments to CA Dialog: Automated CA-Run for Listmatch-selected CA-Database
2022 Amendments to CA Dialog: Added CA-Project Listmatch Selector (max 30 Projects, A40 names)
2022 Added Pottery CA-Database (254 shapes, 79 units) Knossos, MMIIIA-LMIIIB (Fantuzzi & Sturge)
2022 Amendments to Installation: Added Directory Furumark_CA\Data_Knossos
2022 Amendments to CA Dialog: Added Radiobuttons and Numeric Fields for Lower Graphic Box.
2022 Amendments to CA Dialog: Added CA-Project Info Field (EDIT Button and Textfile)
2022 Stability Test Run Database & CalTable (N=100000 ¹⁴C-ages Imported and Calibrated)
2022 Added ¹⁴C-Ages, Moldova, Gordinești II-Stîncă Goală, Tripolje-Cucuteni (N=6, Sîrbu & Król, 2021)
2022 Dimension IDF_GRID1 enlarged from 80000 to 100000 rows.
2022 Added ¹⁴C-Database, Poland, Neolithic-Iron Age, N=53 dates (Chmielewski & 2021)
2022 Added ¹⁴C-Ages, Early Iron Age, Spain, Huelva (N=6, Suárez-Padilla & 2021)
2022 Added ¹⁴C-Database, SE-Europe, Mesolithic, Neolithic, N=69 dates (Jovanović & 2021)
2022 Assembly of Edition 2022.01 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 New Atmospheric Calibration Curve (Suigetsu SET109 & Trees) added to installation
2021 Calibration Curve ERRORX routines updated to Calibration Curve Nr.20 (Atmospheric)
2021 Amendments to CALCURVE_TRUNCATE: Calibration Curve Max Ages updated to Nr.20
2021 Amendments to Multiclimat Composer: Added Names for Sarnthein Plateaus
2021 Amendments to Reservoir Explorer: Added Names for Sarnthein Plateaus
2021 Amendments to Reservoir Explorer: Numeric ¹⁴C-Offset screen values for no extension box
2021 New Atmospheric Calibration Curve (Suigetsu SET109 & Trees) built with Calcurve Composer
2021 New Climate Record: Core MD99-2236, IRD, Hudson Strait, 0-14 ka calBP, (Jennings & 2015)
2021 New Climate Record: Core MD99-2236, Carbonates, Hudson, 0-14 ka calBP, (Jennings & 2015)
2021 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=64635 dates, 12628 sites, 95.5 % georef
2021 Added ¹⁴C-Database, Belgium, Mesolithic, N=325 dates, 100% georef (Maldegem et al., 2021)
2021 Added ¹⁴C-Dataset Israel, Hazor, Early Bronze Age, N=10 dates (Lev et al., 2021)
2021 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=64300 dates, 12621 sites, 95.5 % georef
2021 Added ¹⁴C-Ages, Bronze Age DNA-sets, Spain (N=50, Villalba-Mouco & 2021)
2021 Amendments to Installation: Added climate-context file for Miyake 660 BCE
2021 Assembly of Edition 2021.12 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Amendments to Reservoir Explorer: Added Calcurve-Build files for Miyake 7176 BCE & 5259 BCE
2021 Added Help-documentation for 5411 BCE Miyake event (Miyake 2021)
2021 Added Help-documentation for 5259 BCE and 7176 BCE Miyake events (Brehm & 2021)
2021 Amendments to Installation: Added 5411 BCE Miyake event as shade (Miyake & 2021)
2021 Amendments to Installation: Added climate-context files for Miyake 7176 BCE and 5259 BCE
2021 Amendments to Installation: Added 7176 BCE Miyake event as shade Brehm & 2021)
2021 Amendments to Installation: Added 5259 BCE Miyake event as shade (Brehm & 2021)
2021 Amendments to Reservoir Explorer: Max number of calcurve sets raised from 200 to 300
2021 Amendments to Reservoir Explorer: Automatic switch between numeric & splined-based offset
2021 New Function in Reservoir Explorer: Hidden checkbox for switch numeric or spline-based offset
2021 Completed Tests of Offset Calculations (Dee & (2010): INTCAL09; Manning & (2020): INTCAL13)
2021 New Function in Reservoir Explorer: Optional switch between numeric and spline-based offsets
2021 New Function in Reservoir Explorer: ¹⁴C-Offset calculations based on Numeric Offset Files

2021 New Data: Added Numeric Offset Files for INTCAL09, INTCAL13, and INTCAL20
2021 New Data Set in Reservoir Explorer: Added Egypt Modern Offset Comparisons (Dee & 2010)
2021 New Archaeological Data: Elateia 1, Thessaly, Middle Neolithic (N=6,Reingruber & 2021)
2021 Bug Fix in Dialog Multiclimature Composer: Radiobutton scale-expansion corrected
2021 Amendments to Reservoir Explorer: 'Are you sure ?' Revision added to DELETE ALL Sets
2021 Amendments to Reservoir Explorer: File-internal Documentation of Variables in ¹⁴C-Offset File
2021 New Function in Reservoir Explorer: Transfer of ¹⁴C-Offset File to Multiclimature Composer
2021 Amendments to Reservoir Explorer: Added Menu for Edit Climate Log
2021 Amendments to Reservoir Explorer: Added Menu for Remove Record from Climate Log
2021 Amendments to Reservoir Explorer: Added Menu for Store Climate Context File
2021 Amendments to Reservoir Explorer: Added Menu for Edit Climate Context File
2021 Bug Fix in Dialog Reservoir Explorer: Checkbox-requested 'Old CalCurve' not always drawn
2021 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=64246 dates, 12621 sites, 95.4 % georef
2021 Assembly of Edition 2021.11 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Added ¹⁴C-Database Italy/France, N=4451 dates, 1084 sites, 98.4 % georef (Parkinson & 2021)
2021 Added ¹⁴C-Database Italy, N=3960 dates, 877 sites, 99.9 % georef (Palmisano & 2021)
2021 Amendments to Reservoir Explorer: Added Checkbox for (variable size) Barcode List Numbers
2021 Update to Winteracter 14.10d
2021 New Archaeological Data. Ashkelon, Israel, Bronze Age (N=22, Bruins & van der Plicht, 2019)
2020 New GaussWM Age Model. Tell Tayinat, Phase 6-5-Gap-2 (N=36 ¹⁴C-ages) (Manning & 2020)
2020 New GaussWM Age Model. Tell Tayinat, Phase 6-5 (N=23 ¹⁴C-ages) (Manning & 2020)
2020 New GaussWM Age Model. Tell Tayinat, Phase 2 (N=14 ¹⁴C-ages) (Manning & 2020)
2021 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=60230 dates, 11668 sites, 95.2 % georef
2021 New Archaeological Data. Norway, Arable Farming (N=617, Solheim 2021)
2021 New Archaeological Data. Carpathian Basin, Bronze Age (N=496, Staniuk 2021)
2021 New Globalmapper Dialog: EMODnet Digital Bathymetry Reference added to Help file
2021 New Globalmapper Sites Dialog: EMODnet Digital Bathymetry Reference added to Help file
2021 New Globalmapper Dialog: Europe Bathymetry SRTM-Map added to installation & preview
2021 New Globalmapper Sites Dialog: Europe Bathymetry SRTM-Map added to installation & preview
2021 Assembly of Edition 2021.10 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Amendments to Reservoir Explorer: Refined Offset Graph-layout and File-Documentation.
2021 Amendments to Reservoir Explorer: Refined Auto-Scaling for Interlab-Offset Graph
2021 Amendments to Reservoir Explorer: Bubble-Up Help added to Button and Trackbar fields
2021 New Functionality: Automated calculation of pooled weighted averages for calcurve offsets
2021 New Function: Time-Series Graph for Interlab-Offset, with optional shift (¹⁴C- and cal-scale).
2021 New Function in Reservoir Explorer: Added Date List for Offset Extension
2021 New Function in Reservoir Explorer: Added Screen-Age Measurements for Offset Extension
2021 Amendments to Reservoir Explorer: Graphik and Numeric Fine Tuning of Offset Functionality
2021 New Function in Reservoir Explorer: Time Series of Interlab Differences plotted in Offset Box
2021 New Function in Reservoir Explorer: Button To Edit CalCurve-Offset for Selected Shift-data
2021 New Function in Reservoir Explorer: Checkbox to extend the graphic area for Offset Graph
2021 Added Select Record. KNET40 MAMS 1625-1510 denBC annual ¹⁴C-sequence (Friedrich & 2020)
2021 Adjustments to ResExplorer sliders. The ¹⁴C- and Cal-scale Offsets can be measured in 1-yr steps
2021 Amendments to INTCAL20 SH-data file: ¹⁴C-scale STD manually adapted to INTCAL data
2021 CheckBug Fix in Reservoir Explorer : Broken Radiobutton Shift Range Selection repaired
2021 Bug Fix in Reservoir Explorer : Broken Radiobutton Shift Range Selection repaired
2021 New Climate Record: NW Spain, Peat Growth 0-10 ka calBP (Pontevedra-Pombal & 2018)
2021 Assembly of Edition 2021.9 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Amendments to Auto-Legend in ResExpl & CC-Composer: CC errors included in Offsets
2021 Amendments to INTCAL20-data file: ¹⁴C-scale STD manually adapted to INTCAL data
2021 Amendments to Reservoir Explorer: Added Sindos Select Record (Gimatidis & Weninger 2020)
2021 ¹⁴C-Database Europe-NearEast-NorthAfrica covers N=59115 dates, 11495 sites, 95.2 % georef
2021 New Multiclimature file added to installation: Ukraine Shortlived Dates & GISP2_{nss}K⁺
2021 New Archaeological Data. Ukraine, Tripolye (N=238, Harper & 2021)
2021 New Archaeological Data. Early Iron Age Arslantepe (N=18, Manuelli & 2021)
2021 New Function in ResExpl & CC-Comp: Automated Interlab-Offset Legend (Set vs Calcurve)
2021 New Menu in Reservoir Explorer & CalCurve Composer: Added Menu for Set Summary File
2021 Amendments to Reservoir Explorer & CalCurve Composer: Extensive Operation & Function Tests

2021 New Function in Reservoir Explorer & CalCurve Composer: Added Numbers CalBar Dates & Sets
2021 New Function in Reservoir Explorer: Added Remove-CalCurve Menu
2021 Greyed Calls, Dialogs, Menus, and Subroutines for redundant CalCurve Data Rescale removed
2021 Bug Fix in Reservoir Explorer: Correct Refresh of Graph in Menu VIEW
2021 Amendments to CalCurve Management: Choice of Invalid CalCurve enforces Default Calcurve
2021 Assembly of Edition 2021.8 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Amendments to CalCurve Management: Added Notification for invalid CalCurve construction
2021 Bug Fix in Reservoir Explorer : OldCalcurve Dropdownmenu correctly updated
2021 Bug Fix in CalCurve Composer: OldCalcurve Dropdownmenu correctly updated
2021 New Function in Reservoir Explorer: Save New CalCurve
2021 Redundant 'already sorted' spreadsheet row warning in DATABASE dialog removed
2021 Update to Winteracter 14.10c
2021 New Function in Reservoir Explorer & CalCurve Composer: Added CalBar Legend(Auto-Window)
2021 New Function in Reservoir Explorer & CalCurve Composer: Added CalBar Legend Symbol/Colour
2021 New Function in Reservoir Explorer & CalCurve Composer: Added CalBar Legend Checkbox
2021 New Function in Reservoir Explorer & CalCurve Composer: Added CalBar Info Field & Button
2021 INTCAL20 SET 1-159 CalCurve Lab Data Files Prepared for Selected CalBar Legend
2021 New INTCAL20 calcurve construction Excel datasets SET1...SET159 (N=32) added to installation
2021 New Subdirectory 'c:\calpal_a\calcurve\INTCAL20_datasets' added to installation
2021 New Default ¹⁴C-Database (xls, xlsx, csv, ASCII) added to installation as 'Europe'
2021 New Default ¹⁴C-Database (Europe & NearEast & NorthAfrica) ASCII and csv-formatted
2021 New Default ¹⁴C-Database (Europe & NearEast & NorthAfrica) INTCAL20-calibrated
2021 Added High-Res Map (Annual Precipitation) with ¹⁴C-dated Europe-NearEast-NorthAfrica sites
2021 Assembly of Edition 2021.7 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Default ¹⁴C-Database now covers Europe & NearEast & NorthAfrica (N=58 k dates, 10.5 k sites)
2021 Change to Chronology Composer: Checkbox 'Demography Spline' renamed 'Site Leading Edge'
2021 Added ¹⁴C-Database: Rapa Nui (Easter Island), N= 201 ¹⁴C-Ages (DiNapoli & 2021)
2021 Max Number of Climate records (Variable N_CLIMATE_SETS) expanded to cover 1000 records.
2021 Max Size of all Radiocarbon fields (Variable N_MAX_DATA) expanded from 80 k to 100 k dates.
2021 Added Help-documentation for Core B4905-4 δD_{wax} Cameroon, AHP (Collins & 2017)
2021 New Climate Record: Core B4905-4 δD_{wax} Cameroon, African Humid Period (Collins & 2017)
2021 Added Help-documentation for Lake Tislit records [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: Lake Tislit, Morocco, Winter Rain [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: Lake Tislit, Morocco, Summer Rain [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: Lake Tislit, Morocco, Spring Rain [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: Lake Tislit, Morocco, Annual Rain [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: Lake Tislit, Morocco, Trees & Shrubs [1-18 ka calBP] (Cheddadi & 2021)
2021 Added Help-documentation for wMed Core GC27 record [1-18 ka calBP] (Cheddadi & 2021)
2021 New Climate Record: wMed Core GC27, δD [1-18 ka calBP] (Cheddadi & 2021)
2021 Updated CalPal-xls Europe & Near East ¹⁴C-DB (N=55157 dates, 10564 sites, 95.2 % georef)
2021 New Archaeological Data. Late Bronze- Early Iron Age Ashkelon (N=17, Asscher & 2021)
2021 New Archaeological Data. Early Bronze Age, Reinecke A1/A2, (N=153; Stockhammer & 2015)
2021 CalPal Dialogs: CalTable, Chronology Composer, Globalmapper tested for N=100 k ¹⁴C-ages
2021 CalPal Database Dialog tested for N=100 k ¹⁴C-ages (N > 100 k is correctly truncated)
2021 New Archaeological Data. Yunacite, Chalcolithic, Bulgaria, (N=40; Boyadzhiev & 2021)
2021 Amendments to Chronology Composer: Selected max standard deviation documented in Tables
2021 New function in Chronology Composer: Checkbox/Integer Filter for max standard deviation
2021 New ¹⁴C-ages (N=253) from www.C14.Sk (Barta & 2014, Comenius University, Bratislava)
2021 Assembly of Edition 2021.6 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Updated CalPal-xls Europe & Near East ¹⁴C-DB (N=54602 dates, 10543 sites, 95.4 % georef)
2021 New ¹⁴C-ages (+ N=1800) from NW-med. Neolithic database (Martinez, Morell, Antolín, 2021)
2021 Amendments to Globalmapper Dialog: Extended Help-file
2021 Correction to Globalmapper Dialog: Loaded filename is now shown on dialog screen
2021 Bug Fix in Globalmapper Dialog: Overwritten file Europe.dat is restored on exit from dialog
2021 Amendments to Globalmapper Dialog: New Listmatch (Pulldown Menu) for main variables
2021 Updated CalPal-xls Europe & Near East ¹⁴C-DB (N=52790 dates, 11261 sites, 94.7 % georef)
2021 Update to Winteracter 14.10b
2021 New Globalmapper Dialog: Levante Project SRTM-Map added to installation & preview

2021 New Globalmapper Sites Dialog: Levante Project SRTM-Map added to installation & preview
2021 New GaussWM model added to installation: Iron Age IIA, Atar Haroa, (N=16; Boaretto & 2010)
2021 New Archaeological Data. Israel, Iron Age IIA, Atar Haroa, (N=16; & 2010)
2021 New Archaeological Data. Greece, Middle Neolithic, Makriyalos (+N=39; Maniatis Pappa 2020)
2021 Assembly of Edition 2021.5 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 New Function in GaussWM Dialog: Final TimeSpan Estimate/Error added to Results File
2021 New Function in GaussWM Dialog: Continuously updated on-screen TimeSpan Estimate/Error
2021 New GaussWM model added to installation: Tel Lachish V-IVb-IVa (N=14 Finkelstein & 2019)
2021 New GaussWM model added to installation: Tel Rehov D6-City IV (N=41; Bruins & 2005)
2021 New GaussWM model added to installation: Megiddo (N=95; Martin & 2020)
2021 Updated CalPal-csv Europe & Near East ¹⁴C-DB (N=52690 dates, 10160 sites, 94.1 % georef)
2021 New Archaeological Data. Israel, Tel Rehov (N=100; sources varia e.g. Bruins & 2005)
2021 New Archaeological Data. Israel, Tel Lachish (N=60 ¹⁴C-ages; sources varia e.g. Webster & 2019)
2021 New Archaeological Data. Hungary, Copper Age (N=50 ¹⁴C-ages; Siklósi & Szilágyi, 2021)
2021 New Archaeological Data. Syria, Bronze Age, Tell Arbid (N=162 ¹⁴C-ages; Koliński & Goslar, 2019)
2021 New Archaeological Data. SE Anatolia, PPNA Gusir Höyük (N=25 ¹⁴C-ages; Kabukcu & 2021)
2021 New Archaeological Data. Israel, Megiddo (N=40 ¹⁴C-ages; Martin, Finkelstein, Piasetzky 2020)
2021 New Archaeological Data. Greece, EN, Revenia (N=29 ¹⁴C-ages; Maniatis & Adaktylou 2021)
2021 Assembly of Edition 2021.4 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 Integrated ¹⁴C-Database: Early Neolithic wMed (N=456; Martínez 2020)
2021 Integrated ¹⁴C-Database: Finland (N=370; Pesonen and Oinonen, 2020)
2021 Updated CalPal Europe & Near East ¹⁴C-Database (N=51743 dates, 10037 sites, 94.5 % georef)
2021 Integrated ¹⁴C-Database: NERD (Near Eastern Radiocarbon Database, Palmissano & 2021)
2021 New Function in Database Calibration: Hidden/Enabled functionality for LabCode Comparison
2021 New Function in Database Calibration: File Selector for LabCode Comparison
2021 New Function in Database Calibration: Excel-Database LabCode Comparison and Update Export
2021 New Climate Record: European Drought Index for 75 denBC- 2018 denAD (Büntgen & 2021)
2021 Amendments to Correspondence Analysis: Variable Size Symbols & Colours for Rows/Cols
2021 Amendments to Correspondence Analysis: Added Symbol/Colour CA-Col/Row Preview
2021 Amendments to Correspondence Analysis: Added Selector for CA-Col/Row Symbols
2021 Amendments to Correspondence Analysis: Added Size Selector for CA-Col/Row Symbols
2021 Amendments to Correspondence Analysis: Added Colour Selector for CA-Col/Row Symbols
2021 Amendments to Correspondence Analysis: Added Lable for selected CA File
2021 New Multiclimate file added to installation: Climate Proxies for Sarqa Valley (Central-Jordan)
2021 Update to Winteracter 14.10a
2021 Amendments to CalKN: Added Symbol/Colour Preview
2021 Amendments to CalKN: Added Colour/Size/Symbol Selectors for Crossbar Symbols
2021 Amendments to CalKN: Redesign of Dialog to support new Crossbar options
2021 Amendments to CalTable: Added Symbol/Colour Preview
2021 Amendments to CalTable: Added Colour/Size/Symbol Selectors for Crossbar Symbols
2021 Amendments to CalTable: Added Gaussian STD pulldown menu options to Plateau Design
2021 Bug Fix in Multiclimate and CalTable: Corrected offset of dots on ps-output file (screen: OK)
2021 New Function in Correspondence Analysis: Checkbox to remove empty rows from CA-Table
2021 New Function in Correspondence Analysis: Checkbox to replace Frequencies by 1/0-Incidences
2021 Mountjoy CA Project 'Index Shapes CA' Excel DB added to Installation
2021 Mountjoy CA Project Directory added to Installation (Subdirectory to Furumark_CA)
2021 New Archaeological Data. Mycenaean Iklaina, N=15 (Cosmopoulos % 2019)
2021 New Climate Context Record: 10 ky Greenland Summit Temperature Ar/N2 (Helama & 2021)
2021 New Climate Context Record: Holocene Volcanic Forcing (Kobashi & 2017)
2021 Assembly of Edition 2021.3 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)
2021 New Function in CalTable: Toolbar to show RCC-Lines
2021 New Function in CalTable: Toolbar to show Miyake-Lines
2021 New Function in CalTable: Toolbar to show colour-shaded RCC events
2021 New Function in CalTable: Toolbar to show colour-shaded Heinrich events
2021 New Function in CalTable: Toolbar to show colour-shaded Sapropel S1
2021 New Function in CalTable: Toolbar to show colour-shaded Sarnthein plateaus
2021 New Database added to Installation: Congo-Rainforest (N=1445 dates, Seidensticker & 2021)
2021 New Function in Multichronology Dialog: Toolbar to show colour-shaded Sarnthein Plateaus

2021 New Function in Multiclimature Dialog: Toolbar to show colour-shaded Sarnthein Plateaus

2021 Amendments to Entry.Log: Added storage of Sarnthein Plateau Boundary Ages

2021 Amendments to Literature: Added references for ClimPastDiscussion of Sarnthein Plateaus

2021 New Function in Utility Dialog: Definition of max 24 Sarnthein Plateau Names & Boundary Ages

2021 Update to Winteracter 14.10

2021 New Climate Context Record: Solar Cycles ^{14}C [BP] Record (Brehm & 2021)

2021 Amendments to Installation: Added Demo mcf for Cultures and RCC

2021 Update of HELP-menu references: Obsolete reference to CalPal-Online taken out

2021 Assembly of Edition 2021.2 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2021 Amendments to Multiclimature Composer: Added Demo mcf for all Graphics Styles

2021 Amendments to Multiclimature Composer: Unreadably large texts are blocked (N>200 sitenames)

2021 Amendments to Multiclimature Composer: New Separate Radiobutton for Barcode Graphic Style

2021 Amendments to Multiclimature Composer: Systematic Revision of Graphic Auto-Scaling Routines

2021 New Multiclimature Composer Graph: Neolithic Sarqa Valley (Jordan) mcf added

2021 New Climate Context Record: Neolithic Sarqa Valley SPD (Jordan) added

2021 New Climate Context Record: Neolithic Sarqa Valley (Jordan) Barcode (sites file) added

2021 New Climate Context Record: Neolithic Sarqa Valley (Jordan) Barcode (subperiods file) added

2021 Amendments to Multiclimature Dialog: Scale duplication (leading to smudging) corrected

2021 Bug Fix in Multiclimature Dialog: Format correction of several older climate records

2021 Bug Fix in Multiclimature Dialog: Format correction of missing oldest climate value in graph

2021 Bug Fix in Chronology Composer: Additional Line 13 in several Barcode records removed

2021 Assembly of Edition 2021.1 (Distributable 64 Bit OS: 32/64 Bit xls/xlsx/ASCII-csv database)

2021 Amendments to $\Delta^{14}\text{C}$ Composer: Checkbox and Button to Sort Grid by increasing $\Delta^{14}\text{C}$ -Values

2021 Amendments to CalCurve Composer: Added Select Solar Cycles ^{14}C [BP] Record (Brehm & 2021)

2021 Amendments to Multiclimature Composer: Added Solar Cycles $\Delta^{14}\text{C}$ Record (Brehm & 2021)

2021 Amendments to Multiclimature Composer: Added INTCAL20 $\Delta^{14}\text{C}$ Record Part 2 (Glacial)

2021 Amendments to Multiclimature Composer: Added INTCAL20 $\Delta^{14}\text{C}$ Record Part 1 (Holocene)

2021 Amendments to Multiclimature Composer: Added Miyake event $\Delta^{14}\text{C}$ example (Miyake & 2017)

2021 Amendments to Installation: Added Climate Select file (Miyake & 2017)

2021 New Function in $\Delta^{14}\text{C}$ Composer: Added symbol selection for *dots*-radiobutton

2021 New Function in Multichronology Dialog: Toolbar selection of Miyake Event Shading & Colour

2021 New Function in Multiclimature Dialog: Toolbar selection of Miyake Event Shading & Colour

2021 New Function in Multichronology Toolbar: Cursor Shape changes and Grid-Graticules

2021 Expanded Installation Entry.log to store 12 Miyake events (Names and start/stop calBP ages)

2021 New Function in Dialog Utilities: Added Menu for max 12 Miyake events.

2021 New Function in $\Delta^{14}\text{C}$ Composer: csv Format $\Delta^{14}\text{C}$ -Grid Export/Import

2021 New Function in $\Delta^{14}\text{C}$ Composer: Excel Format $\Delta^{14}\text{C}$ -Grid Export/Import

2021 New Function in $\Delta^{14}\text{C}$ Composer: Left/Right $\Delta^{14}\text{C}$ -Graphs; added Dots with optional error bars

2021 Bug Fix in $\Delta^{14}\text{C}$ Composer: not working graphic dot corrected

2021 New Function in $\Delta^{14}\text{C}$ Composer: Added Database Import for archaeological data sets

2021 Amendments to $\Delta^{14}\text{C}$ Composer: Auto-read text documentation of $\Delta^{14}\text{C}$ records

2021 Amendments to $\Delta^{14}\text{C}$ Composer: Info fields added to clarify file import time scale

2021 New Function in $\Delta^{14}\text{C}$ Composer: Added Bubble-Help for main Buttons

2020 Update to Winteracter 14.0b

2020 New Function in $\Delta^{14}\text{C}$ Composer: Added CalCurve File construction, editing, and log

2020 Amendments to $\Delta^{14}\text{C}$ Composer: Dialog Refresh for new $\Delta^{14}\text{C}$ Climate-context record

2020 Amendments to $\Delta^{14}\text{C}$ Composer: Added Examples $\Delta^{14}\text{C}$ <--> BP Transfer (Excel & ASCII-format)

2020 New Functions in $\Delta^{14}\text{C}$ Composer: Added Excel and ASCII file import

2020 New Design of $\Delta^{14}\text{C}$ Composer: Added BP <--> $\Delta^{14}\text{C}$ Transfer functionality *via* Grid

2020 New Archaeological Data. Lengyel Hungary (N=91 ^{14}C -ages; 8 cemeteries) (Regenye & 2016)

2020 Bug Fix in Chronology Composer: Incomplete Screen Refresh for shading & shortlived samples

2020 Assembly of Edition 2020.12 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database)

2020 Verification of CSV-Import/Export Functions with Apache Open Office Version 4.1.8

2020 New Function in Calibrate Database Dialog: CalPal spreadsheet data CSV Import/Export

2020 New Function in Chronology Composer: CalPal spreadsheet data CSV Import

2020 Amendments to Installation: Added spreadsheet csv database examples (Crete.csv, Europe.csv)

2020 Amendments to Installation: New spreadsheet html example (Crete.html)

2020 New Function in Database Dialog: CalPal spreadsheet data HTML Export
2020 Amendments to Installation: Added <database\html_project> directory
2020 Amendments to Installation: Added <database\csv_project> directory
2020 New Function in Database Dialog: CalPal spreadsheet data CSV Import/Export
2020 Amendments to Database Dialog: Menu lists updated for all spreadsheet functions
2020 Amendments to Database Dialog: Dropdown list selection set directly on selected cell
2020 Update to Winteracter 14.0a
2020 New Archaeological Data. Iron Age: Tel Lachish (N=67 ¹⁴C-ages) (Garfinkel & 2019)
2020 Updated CalPal Europe & Near East ¹⁴C-Database (N=46736 dates, 9529 sites, 94.1 % georef)
2020 New Archaeological Data. Early Bronze Age:Tel Lachish (N=20 ¹⁴C-ages) (Webster & 2019)
2020 New Archaeological Data. Early Bronze Age:Tell Fadous (N=33 ¹⁴C-ages) (Höflmayer & 2014)
2020 New Function in Delta ¹⁴C Composer: Mouse Screen Age Measurements (Simultaneous 2-Scale)
2020 Amendments to Cartography Dialog: New Green Colour field to indicate number crunching
2020 Amendments to CalCurve Data Import: Added numbering on spreadsheet
2020 Amendments to Chronology Composer: Bubble-up help texts added to selected checkboxes
2020 Amendments to Database Spreadsheet: Green Colour field indicates number crunching
2020 Amendments to Installation: Updated PlotConv Version 14
2020 Update to Winteracter 14.0
2020 Bug Fix in Chronology Composer: Corrected duplicate country count in pulldown menu
2020 New Archaeological Data. Early Bronze & Iron Age:Tell Tayinat (N=48 ¹⁴C-ages) (Manning&2020)
2020 Update to Winteracter 13.0h
2020 New Function in CalTable. Checkbox to show Gauge Heights on ¹⁴C-Histogram
2020 New Function in CalTable. Checkbox for dashed lines to connect Plateaus, ¹⁴C-Histogram & SPD
2020 New INTCAL20 SH Calibration Curve (Hogg & 2020) built and added to installation
2020 Assembly of Edition 2020.11 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 Bugfix in Database Excel Export Calibrated Ages: If DB managment selected, wrong -999 calages
2020 New Archaeological Data: Middle Bronze Age Tell el-Hayyat, Jordan (N=31 ¹⁴C-ages; Fall & 2020)
2020 Amendments to Chronology Composer: SPD now correctly shows filtered dates (all variables)
2020 Amendments to Chronology Composer: Autofit (optional) extended to Dates
2020 Amendments to Chronology Composer: Discrimination of available vs filtered Sorting variables
2020 Amendments to Chronology Composer: Discrimination of available vs filtered Timing variables
2020 Amendments to Chronology Composer: Aesthetic and technical simplifications on Dialog
2020 Amendments to Chronology Composer: Bubble-up help texts added to selected buttons
2020 Amendments to Chronology Composer: Autofit chosen as default
2020 New Function in Chronology Composer: Autofit (optional) Adaptive Expand-Trackbar Scaling
2020 New Function in Chronology Composer: Autofit (optional) Bar Height page-fit size
2020 New Function in Chronology Composer: Autofit (optional) Textsize page-fit size
2020 New Function in Chronology Composer: Autofit (optional) All Variables page-fit size
2020 New Climate Record: M125-95-3 Fe/K South American Monsoon System (Campos & 2019)
2020 New Climate Record: M125-95-3 Ti/Ca South American Monsoon System (Campos & 2019)
2020 New Climate Record: M125-55-7 Ti/Ca South American Monsoon System (Hou & 2020)
2020 Central Africa ¹⁴C-Database (Dirk Seidensticker 2016) added to installation
2020 Assembly of Edition 2020.10 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 New Central Africa ¹⁴C-Database (N=1709 ¹⁴C-ages;562 sites; 13 countries); (Seidensticker 2016)
2020 New Archaeological Data: Mesolithic Burials (N=70 ¹⁴C-ages;7 sites); (Peyroteo-Stjerna 2020)
2020 New Climate Record: Cariaco Basin Core MD03-2621 Reflectance 6-109 ka (Deplazes & 2013)
2020 New Climate Record: Arabian See Core SO130-289KL Reflectance 2-80 ka (Deplazes & 2013)
2020 Bug Fix in ¹⁴C-Database Goldberg_South_America.xls: corrected non-numeric coordinates
2020 Amendments to CalTable: Gauge Scale with red arrow
2020 New Archaeological Data: Late Bronze-Early Iron Age Megiddo (N=78 ¹⁴C-ages), (Tofollo & 2014)
2020 Amendments to Chronology Composer: Optional Gauge Scale with red arrow
2020 Amendments to Chronology Composer: Demography Bezier Curve replaced by Spline Fit
2020 Amendments to Literature: Added References for Fourier Transform
2020 Amendments to Chronology Composer: Demography Bezier Curve replaced by Spline Fit
2020 Updated Calibration of Complete CalPal Europe & Near East ¹⁴C-Database (xls,xlsx, ASCII)
2020 Updated CalPal Europe & Near East ¹⁴C-Database (N=46413 dates, 9489 sites, 93.6 % georef)
2020 New Climate Context Record: Goldberg S-America SPD (N=5238 dates) added to installation
2020 New Climate Context Record: Goldberg S-America SPD (N=5238 dates)

2020 New Multiclimature Composer file Greece.mcf added to installation
2020 New Climate Context Record: Greece Sites-Barcode added to installation
2020 New Climate Context Record: Greece SPD added to installation
2020 New Climate Context Record: Greece Sites-Barcode Series (N=303 sites; (Katsianis & 2020)
2020 New Climate Context Record: Greece SPD (N=2543 dates); (Katsianis & 2020)
2020 New Greece ¹⁴C-Database (N=2543 dates; 303 sites); (Katsianis & 2020)
2020 Amendments to CalPal: Deconvolution routines taken out (7167->7165 kB exe size reduction)
2020 Bug Fix in all Dialogs: MouseMove Line Measurement Shadow removed
2020 Assembly of Edition 2020.9 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 New Function in CalTable: Gauge Scale Graph with horizontal position steered by Trackbar
2020 New Function in CalTable: Trackbar to select horizontal position of Gauge Scale Graph
2020 New Function in CalTable: Checkbox for optional Gauge Scale Graph
2020 Amendments to Database Spreadsheet: Bubble Up Information added to Dialog Buttons
2020 Update to Winteracter 13.0g
2020 Updated Calibration of Complete CalPal Europe & Near East ¹⁴C-Database (xls,xlsx, ASCII)
2020 Updated CalPal Europe & Near East ¹⁴C-Database (N=46140 dates, 9452 sites, 93.6 % georef)
2020 New Archaeological Data: Neolithic Mushash-163 (N=13 ¹⁴C-ages), (Karin Bartl)
2020 New Archaeological Data: Neolithic al-Sayyeh (N=30 ¹⁴C-ages), (Karin Bartl)
2020 New Archaeological Data: Neolithic Shir-Central (N=12 ¹⁴C-ages), (Karin Bartl)
2020 New Archaeological Data: Neolithic Shir-S (N=40 ¹⁴C-ages), (Karin Bartl)
2020 New Archaeological Data: Neolithic Shir-NE (N=31 ¹⁴C-ages), (Karin Bartl)
2020 Amendments to Database Spreadsheet: INSERT LINE allowed for first line
2020 Amendments to Database Spreadsheet: Update of number of dates for SELECT ALL
2020 Amendments to Database Spreadsheet: Update of last entry prior to SELECT ALL
2020 Amendments to Database Spreadsheet: Warning for delete last line
2020 Bug Fix in Database Spreadsheet: Correction of INSERT LINE Function
2020 Bug Fix in Database Spreadsheet: Correction of DELETE LINE Function
2020 New Archaeological Data: Niedertiefenbach Gallery Grave (N=15), (Rinne & 2016)
2020 New Climate Selectfile: Herrle & 2018; Northern Aegean Black Sea Outflow
2020 Assembly of Edition 2020.8 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 Updated Help-Literature
2020 Amendments to Calcurve Construction Help: Added html-info for all INTCAL20 sets
2020 New Default CalCurve INTCAL20 added to installation
2020 Updated CalCurve Comparison to include CalPalHulu2019 vs INTCAL20
2020 New INTCAL20 N=32 files (Sets 1-126) added to installation
2020 New CalCurve Select Log: INTCAL20.log (Lab Rawdata Sets 1-126; 32 Set files + 3 overview files)
2020 New CalCurve Select Data: INTCAL20 Lab Rawdata Glacial Section
2020 New CalCurve Select Data: INTCAL20 Lab Rawdata Holocene Section
2020 New Calibration Curve Constructed: INTCAL20
2020 New Calibration Data Set added: INTCAL20 (Reimer & 2020)
2020 Assembly of Edition 2020.7 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 Further Amendments to CalTable: Gauge Integrals optimized for mixed STD $1 \leq \text{STD} \leq 1000$ BP
2020 New Climate Selectfile: Goldberg et al., (2016); South America, Fig.3b (Smoothed)
2020 New Climate Selectfile: Goldberg et al., (2016); South America, Fig.3b (Spikes)
2020 New ¹⁴C-Database added to installation: Goldberg et al., (2016); South America
2020 New ¹⁴C-Database: Goldberg et al., (2016); South America (N=5472 Dates, 99.9 % georef)
2020 Update to Winteracter 13.0f
2020 Assembly of Edition 2020.6 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2020 Aesthetic Amendment to CalTable: Hidden Checkbox renamed to Bohm Fields
2020 Completed Tests that ¹⁴C-Calibration can be described as Fourier Transform
2020 Studies on Fourier Transform: Confirmation that Gauge Plateau Box covers GaussWM results
2020 Studies on Fourier Transform: Confirmation that ¹⁴C-scale Convolution = Gauge Probability
2020 Studies on Fourier Transform: Confirmation that ¹⁴C-scale Convolution = Calscale Multiplication
2020 Amendments to CalTable: Extended range of Gauge Plateaus for $100 \leq \text{STD} \leq 1000$ BP
2020 Amendments to CalTable: Introduction of variable Plateau Lebesgue integration steps
2020 Amendments to CalTable: Enhanced and abbreviated layout of Gauge and Plateau Table
2020 Complete Run to Default ASCII ¹⁴C-Database CalPal-Europe (N=46055 dates)
2020 Complete Run to Update Excel ¹⁴C-Database British Isles Bevan & 2017 (N=30523 dates)

2020 Complete Run to Update Excel ¹⁴C-Database CalPal-Europe (N=46055 dates)
2020 Complete Run to Update Excel ¹⁴C-Database CalPal-Holocene-Palaeolithic (N=54103 dates)
2020 Bug Fix in CalTable: Gauge Amplitude pulldown menu input corrected
2020 Bug Fix in CalTable: Plateau Gauge integration steps increased from 1 to 10
2020 New Archaeological Data: Los Milares cemetery (N=19), (Jiménez & 2020)
2020 Assembly of Edition 2020.5 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database)
2020 Updated CalPal Europe & Near East ¹⁴C-Database (N=46055 dates, 9448 sites, 93.5% georef)
2020 Archaeological ¹⁴C-database Neol. Harvesting Tools (Mazzucco % 2020) added to installation)
2020 Update to Winteracter 13.0e
2020 New Climate Record: Aegean Core M-4G SST 7.4 ka calBP (Triantaphyllou et al., 2015)
2020 New Climate Record: Central Italy Corchia Cave $\delta^{18}\text{O}$ 4.2 ka calBP (Isola et al., 2019)
2020 New Climate Record: North Italy Renella Cave $\delta^{18}\text{O}$ 4.2 ka calBP (Drysdale et al., 2006)
2020 New Climate Record: Ice Mass Loss Norwegian Sea 36-8 ka calBP (Patton et al., 2017)
2020 New Climate Record: Gulf Taranto DP30 Warm Water Species (Maiorano et al., 2020)
2020 New Climate Record: North China Zhenzhu Cave $\delta^{18}\text{O}$ 130 ka EASM (Li et al., 2020)
2020 New Climate Record: North China Zhenzhu Cave $\delta^{13}\text{C}$ 130 ka EASM (Li et al., 2020)
2020 New Archaeological Data: Sicily, Grotte del Uzzo (N=17), (Loosdrecht & 2020)
2020 New Climate Record: North Italy Grotte di Ernesto ER76 $\delta^{13}\text{C}$ 7.4 ka calBP (Frisia et al., 2006)
2020 New Climate Record: Sicily Grotta di Carburangeli CR1 $\delta^{13}\text{C}$ 7.4 ka calBP (Frisia et al., 2006)
2020 New Climate Record: Central America GU RM1 $\delta^{18}\text{O}$, 343-12778 calBP (Winter et al., 2020)
2020 Assembly of Edition 2020.4 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database)
2020 New Climate Record: North Patagonia Dendro Temperature 3672 BC- 2009 AD (Lara et al 2020)
2020 New Climate Record: Czech Early Neolithic Dendrochronology Ostrov Well (Rybniček et al 2020)
2020 Amendments to CalTable and Multigroup Dialogs: Unification of Gauge Tables
2020 Amendments to CalTable and Multigroup Dialogs: Unification of Gauge Calculations Subroutine
2020 New Function in Multigroup Dialog: Added On/Off checkbox for Gauge-Phases
2020 New Function in Multigroup Dialog: Added On/Off checkbox for Gauge-Plateaus
2020 New Function in Multigroup Dialog: Added On/Off checkbox for Gauge-Lines
2020 New Function in CalTable Dialog: Gauge-Phases: Projection of Plateaus onto cal-scale
2020 New Function in CalTable Dialog: Rapid Glacial-Holocene Plateau-Gauge Graph Construction
2020 Redesign of CalTable Dialog: Dialog Re-Arrangement of Plateau-Gauge Functions
2020 New Function in CalTable Dialog: Checkbox for Plateaus-Gauges on frequency normalisation
2020 New Function in CalTable Dialog: Checkbox for cal-scale frequency normalisation function
2020 Update to Winteracter 13.0d
2020 New Climate Record: Atmospheric CH₄, Ice core data AD 2016-156 ka calBP (Köhler et al 2017)
2020 New Climate Record: Atmospheric CO₂, Ice core data AD 2016-156 ka calBP (Köhler et al 2017)
2020 Amendments to CalTable Dialog: Extensive revisions of run-time clock & progress bar functions
2020 New Function in CalTable Dialog: Sum of PIM values added to output file
2020 CalCurve Build Help added to installation: revised Suigetsu data (Ramsey & 2012)
2020 New CalCurve Select Data: Hulu-synchronised revised Suigetsu data (Ramsey & 2012)
2020 Studies on Convolution: Calibration and back-calibration of Dirac Combs
2020 Test that cal ¹⁴C-scale summed distribution = summed cal-scale normalised distribution
2020 New Function in CalTable Dialog: cal-scale normalisation
2020 Amendments to CalTable Dialog: Optimized Plateau-Box construction (4-point)
2020 Assembly of Edition 2020.3 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database)
2020 Test of ¹⁴C-scale screen measuring precision: 0.2 % (e.g. 10000 ± 20 [BP])
2020 New Function in CalKN Dialog: Toolbar with Screen Left Mouse Measurements ¹⁴C-Scale
2020 New Function in CalTable Dialog: Toolbar with Screen Left Mouse Measurements ¹⁴C-Scale
2020 Amendments to CalTable Dialog: Plateau tests (high density, low STD, linear & real calcurves)
2020 Amendments to CalTable Dialog: Minimum Plateau Length improved to 1 yr
2020 Amendments to CalTable Dialog: Gauge Probability Plateau resolution improved to ± 1 yr
2020 Multiclimat Record File added to Installation: 7.4 ka calBP RCC record compilation
2020 Amendments to CalTable Dialog: Tooltip bubble-up Help added to Buttons and Pulldown Menus
2020 Amendments to CalTable Dialog: Changes to Help and Help Hidden to cover new functions
2020 Amendments to CalTable Dialog: 2-D Wavefunction Checkbox Hidden when not used
2020 Test that Born Probability & Squared Cal-Wavefunction produce identical results
2020 Amendments to CalTable: Relevant fields for toggle Classical/Quantum coloured yellow/blue
2020 New Function in CalTable: Checkbox to toggle Classical-Probability <-> Quantum Wavefunction

2020 New Function in CalTable: Checkbox to toggle Classical-Probability <-> Quantum Wavefunction

2020 Update to Winteracter 13.0c

2020 Bug Fix in Screen Measurements: Multiclimature Composer- PlotMode corrected to XOr

2020 Bug Fix in Screen Measurements: Multisite Composer- PlotMode corrected to XOr

2020 Bug Fix in Screen Measurements: All CalCurve-routines – PlotMode corrected to XOr

2020 Bug Fix in Screen Measurements: CalDiet - PlotMode corrected to XOr

2020 Bug Fix in Screen Measurements: CalKN - PlotMode corrected to XOr

2020 Bug Fix in Screen Measurements: Caltable - PlotMode corrected to XOr

2020 Amendments to Multiclimature Composer: Shading of RCC-events limited to graph-area

2020 Amendments to Multichronology Composer: Shading of RCC-events limited to graph-area

2020 New Climate Record: Alpine Tree Ring Record Depth 10000-0 calBP (Nicolussi & 2015)

2020 New Function in CalPal: Added Error-free Linear Calibration Curve for Quantum Theory studies

2020 Amendments to CalDiet: Replay Graph in replace of new run on window expose

2020 Amendments to GaussWM: Replay Graph in replace of new run on window expose

2020 Amendments to Multiclimature Composer: Replay Graph instead of new run on window expose

2020 Amendments to CalTable: Replay Graph in replace of new run on window expose

2020 New Function in Excel-Export: Hidden Fields for Choice of Classical and Quantum Probability

2020 New Function in Multimethod: Hidden Fields for Choice of Classical and Quantum Probability

2020 New Function in Multigroup: Hidden Fields for Choice of Classical and Quantum Probability

2020 New Function in CalDiet: Hidden Fields for Choice of Classical and Quantum Probability

2020 New Function in CalKN: Hidden Fields for Choice of Classical and Quantum Probability

2020 New Function in Excel-Export: Radiobutton Choice of Classical and Quantum Probability

2020 New Function in Multimethod: Radiobutton Choice of Classical and Quantum Probability

2020 New Function in Multigroup: Radiobutton Choice of Classical and Quantum Probability

2020 New Function in CalDiet: Radiobutton Choice of Classical and Quantum Probability

2020 New Function in CalKN: Radiobutton Choice of Classical and Quantum Probability

2020 Test that Born Product and Squared Cal-Wavefunction converge to Classical results

2020 Test that Born Product and Squared ¹⁴C-Wavefunction produce identical results

2020 Test that Born Product and Squared Cal-Wavefunction produce identical results

2020 Assembly of Edition 2020.2 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database

2020 New Climate Record: Renland Icecore $\delta^{18}O$ 8000-0 calBP (Hughes & 2020), Bond events

2020 New Climate Record: Corsica Lake Bastani Fe (Sabatier & 2020), Proxy for ITCZ & 3.0 ka RCC

2020 New Climate Record: Core MP39PC Ba/Al (Filippidi and deLange, 2019), 7.4 ka calBP event

2020 New Climate Record: Core MP50PC Ba/Al (Filippidi and deLange, 2019), 7.4 ka calBP event

2020 Test of New Functions in CalTable: Aesthetic Smoothing follows final SPD-construction

2020 New Function in CalTable: Screen Output of Nr Lebesgue Plateaus

2020 New Function in CalTable: Menu file with Lebesgue Plateau Impact Values (Classical & Hilbert)

2020 New Function in CalTable: Automated Plotting of Plateau Boxes (Classical & Hilbert Space)

2020 Amendments to CalTable: Enhanced Precision (2 yr) of Lebesgue Plateau Measurements

2020 New Function in CalTable: Automated Plotting of Plateau Ages (Multiple Intervals)

2020 New Function in CalTable: Menu to edit file with numbered Plateau Ages (Multiple Intervals)

2020 Amendments to CalPal: Added Module Common_Variables.f90

2020 Amendments to CalTable: Default Classical Prob for Hidden Fieldstate Probability

2020 Amendments to CalTable: Hidden/Enabled Fieldstate for Quantum and Plateau Functions

2929 Added Radiobutton 0.25 to increase resolution of stepwise expansion

2020 New Function in CalTable: Automated Calculation of Plateau Positions (Classical and Quantum)

2020 New Function in CalTable: Variable Integer Probability Level for Plateau Calculations

2020 Confirmation that Quantum Probability supports new Plateau Definition

2020 Confirmation that SPD-Normalization works for Classical and Hilbert Space probability

2020 New Function in CalTable: Choice of Classical, Classical-Squared, or Hilbert Space probability

2020 New Project in CalTable: ¹⁴C-Age Calibration in Hilbert Space

2020 Amendments to GaussWM Dialog: Added Radiobutton 0.25 to increase incremental resolution

2020 Test of New Functions in Chronology Composer: works for 10.7 k sites (SE England).

2020 New Function in Chronology Composer: HELP bubble up on trackbars

2020 New Function in Chronology Composer: SCALE button to conveniently scale demography spline

2020 New Function in Chronology Composer: Variable dot size for demography spline

2020 New Function in Chronology Composer: Checkbox to connect SPD barcode sort-ages

2020 Amendments to GaussWM: Documentation 'Linear Fit IMSL RLINE' added to age-depth graph

2020 Update to Winteracter 13.0b

2020 Assembly of Edition 2020.1 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database

2020 Extended ¹⁴C-Database CalPal-Europe (N=45947 dates, 9456 sites, 93.6% georef)
2020 New GaussWM Data: Ammer Valley LBK Benchmark Chronology (N=21), (Krauß & 2020)
2020 New Archaeological Data: Bukova Pusta IV (N=17), (Krauß & 2018)
2020 Construction of Test Dataset 0-60 ka (N=600 ¹⁴C-ages, 100 BP steps) for Chronology Composer.
2020 Bug Fix in Chronology Composer: Missing calibration errors for radiobutton selection of *dates*
2020 Bug Fix in Chronology Composer: Sign error for calAD dates, corrected wrong barcode position
2020 Amendments in Chronology Composer: Optional checkbox 'show SPD' made functional
2020 New Function in Chronology Composer: Left mouse screen magnification: dates labcode
2020 Bug Fix in WHelpFile: Filename CalcurveComparisons_2020.pdf corrected
2020 Bug Fix in CalDiet Dialog: Screenmeasure cursorshape changed from hourglass to arrowcross
2020 New Archaeological Data: Gumelnița (N=4), (Lazar & 2017)
2020 New Archaeological Data: Hala Sultan Tekke (N=23), (Wild & 2019)
2020 New Function in Chronology Composer: Left mouse screen magnification: sitetype name
2020 New Function in Chronology Composer: Left mouse screen magnification: culture name
2020 New Function in Chronology Composer: Left mouse screen magnification: subperiod name
2020 New Function in Chronology Composer: Left mouse screen magnification: period name
2020 New Function in Chronology Composer: Left mouse screen magnification: site name
2020 Amendments to Maps/Highquality: Loess-Haase map (Europe/Ukraine) added to installation
2020 New Function in Chronology Composer: Left mouse screen output numeric X/Y-screen values
2020 New Function in Chronology Composer: Left mouse screen draws horizontal line to variable
2020 Documentation of Tests for Calibration Curve 2019 Hulu (Tab.3 CalCurveComparison_2020.pdf)
2020 Amendments to Calibration Curve 2019 Hulu: Holocene section set identical to 2018 Hulu
2020 Bug Fix in Calibration Curve CalPal 2019 Hulu (Incomplete Glacial Errors)
2020 Amendments to Chronology Composer: Added window option Owned by Parent
2020 Amendments to Chronology Composer: Added default checkbox-value Show Sort Age
2020 Amendments to Chronology Composer: Added default checkbox-value Show SPD
2020 Amendments to Reservoir Explorer: LBK-Brunn dataset added to select.log
2020 Amendments to GaussWM dialog: LBK-Brunn dataset added to installation
2020 Update to Winteracter 13.0a

2019 Assembly of Edition 2019.10 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database

2019 New CalCurve Select Data: Floating SH-Kauri Tree-Ring Data (Hogg et al 2016, via INTCAL13)
2019 Documentation added for Construction of Calibration Curve CalPal 2019 Hulu
2019 Test of Results achieved with Calibration Curve CalPal 2019 Hulu (using testset.dat 0-60 ka)
2019 Calibration Curve CalPal 2019 Hulu added to Installation
2019 Calibration Curve Update: New CalPal 2019 Hulu (added YD-data, Capano & 2019)
2019 New Archaeological Data: Svinjarička Čuka (N=13), (Horejs & 2019)
2019 GaussWM Test of Barbier YD-Data (12594-13008 ± 10 calBP): 7 ± 5 yrs older (OK).
2019 New CalCurve Select Data: Floating YD Barbier (N=250, 12594-13008 ± 10 BP), (Capano & 2019)
2019 Quantification of Screen Age Measurement Errors: 1 ‰ of Age (e.g 1000 ± 1; 10000 ± 10)
2019 Amendments to CalPal: Unification of Mouse Screen Ages (3 Subroutines: Left, Move, Up)
2019 Added Functionality to GaussWM: Left Mouse Screen Age Measurements (Toolbar On/Off)
2019 Added Functionality to CalCurve ODBC Data Import: Left Mouse Screen Age Measurements
2019 Added Functionality to ReservoirExplorer: Left Mouse Screen Age Measurements
2019 Added Functionality to CalCurveComparer: Left Mouse Screen Age Measurements
2019 Added Functionality to CalCurve Composer: Left Mouse Screen Age Measurements
2019 Added Functionality to CalDiet Dialog: Left Mouse Screen Age Measurements
2019 Added Functionality to CalTable Dialog: Left Mouse Screen Age Measurements
2019 Added Functionality to CalKN Dialog: Left Mouse Screen Age Measurements
2019 Bug Fix Chronology Composer: Added Screen Refresh
2019 Added Info to Installation Instructions: Installation requires (right mouse) administrator access
2019 Update to Winteracter 13.0
2019 Amendments to Main Menu Maps: Added High-Quality Global Climate Maps (N=14, jpg)
2019 Amendments to Main Menu Maps: Added High-Quality Subdirectory "Maps\HighQuality"
2019 Bug Fix Globalmapper: Wrong Path to map 'Europe.gmp' fixed
2019 Amendments to Main Menu Maps: Added Loess Haase 2017 High Resolution Map
2019 Amendments to Main Menu Maps: Dialog replaced with Winteracter Graphics Viewer

2019 Chronology Composer Test-Run for Max Database Size: Sequencing for 45 k dates & 10 k sites
2019 Update to Winteracter 12.0 h
2019 New Function in CC: Menu File with Age-Sorted Map-Numbers (Globalmapper Input Format)
2019 New Function in CC: Menu File with Age-Sorted Map-Names (Globalmapper Input Format)
2019 New Function in Chronology Composer (CC): Menu List with Age-Sorted Site Map-Number
2019 New Function in Chronology Composer (CC): Checkbox for Age Sorted Site Map-Numbers
2019 New Climate Record: Kuna Ba Cave Detrended Z-Score $\delta^{18}\text{O}$, North Syria, (Sinha & 2019)
2019 New Climate Record: Kuna Ba Cave $\delta^{13}\text{C}$, North Syria, Composite NIR-1 and NIR-2 (Sinha & 2019)
2019 New Climate Record: Kuna Ba Cave $\delta^{18}\text{O}$, North Syria, Composite NIR-1 and NIR-2 (Sinha & 2019)
2019 Assembly of Edition 2019.8 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 Bug Fix in GaussWM Dialog: UTILITIES preset of IAWM-variable (nr repeat) is now functional
2019 Bug Fix in Reservoir Explorer: CalCurve Colour pulldown menu is now functional
2019 Bug Fix in Help Dialog: Changed file name of CalCurveComparisons_2019 corrected
2019 Amendments to Help-Update Dialog: Obsolete Fields UPDATE and INTERNET_URL removed
2019 Amendments to Postscript graphs: enlarged ticklength (+10%) and linewidth (+30%)
2019 Amendments to dialogs without databox: Right 14C-scale Ticks aligned outside of graphic area
2019 PlotConv updated from Version 12.e to Version 12.g and window minimisation removed.
2019 Added Record-Documentation for Hallstatt Plateau Single Years (Jacobsson & 2017)
2019 New Select Record added to installation: Hallstatt Plateau Single Years (Jacobsson & 2017)
2019 Amendments to CalPal: Obsolete Time Scale Subroutines removed
2019 Amendments to CalDiet Dialog: Upper [calBP] Time Scale added (ticks & numbers)
2019 Amendments to CalKN Dialog: Upper [calBP] Time Scale added (ticks & numbers)
2019 Amendments to GaussWM Dialog: Upper [calBP] Time Scale added (ticks & numbers)
2019 Amendments to CalTable Dialog: Upper [calBP] Time Scale added (ticks & numbers)
2019 Amendments to Reservoir Explorer: Upper [calBP] Time Scale added (ticks & numbers)
2019 Bug Fix in Reservoir Explorer: Unrequested change of Calcurve in REFRESH & ADD removed
2019 Amendments to Reservoir Explorer: Screen Field Adjustments for selected climate functionality
2019 Bug Fix in Reservoir Explorer: CalCurve Colour pulldown menu is now functional again
2019 Amendments to Reservoir Explorer: CALIBRATE Button renamed as REFRESH
2019 Amendments to Reservoir Explorer: Added refresh of main graph for CALIBRATE Button
2019 Amendments to Reservoir Explorer: Added refresh of main graph for changed olderage/width
2019 Amendments to GaussWM Dialog: Added run-time field showing oldest sequence age & STD
2019 Amendments to GaussWM Modelling: Model 4: Added information field for Top=0 Depth
2019 New Function in GaussWM Modelling: Model 4: Rescale Spreadsheet DEPTH with Top=0 Depth
2019 New Climate Record: Dongshia & Laomu Cave $\delta^{13}\text{C}$ (Zhang & 2018) pers comm Yan Yang
2019 New Climate Record: Dongshia & Laomu Cave $\delta^{18}\text{O}$ (Zhang & 2018) pers comm Yan Yang
2019 New Climate Record: Shuiming Cave $\delta^{13}\text{C}$ (Feng & 2019; 8-7 ka ka calBP) pers comm Yan Yang
2019 New Climate Record: Shuiming Cave $\delta^{18}\text{O}$ (Feng & 2019; 8-7 ka ka calBP) pers comm Yan Yang
2019 Update to Winteracter 12.0 g
2019 New Climate Composer Record: Aşıklı Höyük Percentage Caprines (Data: Stiner & PNAS 2014)
2019 New Select Record added to installation: Aşıklı Höyük GaussWM (Data: Stiner & PNAS 2014)
2019 Multiclimatic context spd-File added to installation: Libya (N=210 dates, M=59 sites)
2019 Multiclimatic context spd-File added to installation: Tunisia (N=78 dates, M=36 sites)
2019 Multiclimatic context spd-File added to installation: Algeria (N=393 dates, M=172 sites)
2019 Multiclimatic context spd-File added to installation: Morocco (N=555 dates, M=140 sites)
2019 Multiclimatic Graph added to installation: North Africa 4 countries & Sapropel S1 & GISP2
2019 Assembly of Edition 2019.7 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 Amendments to Globalmapper Sites: Update of Help file
2019 Amendments to Globalmapper Sites: Default multiple-globalmapper-calls (quicker reload)
2019 Amendments to Globalmapper dialog: Default multiple-globalmapper-calls (quicker reload)
2019 Updated Documentation & Help for Glaciation Maps
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Meiendorf
2019 Globalmapper Interface: Added Glaciation Map Epha Meiendorf
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Late Glacial Maximum
2019 Globalmapper Interface: Added Glaciation Map Epha Late Glacial Maximum
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Dryas III
2019 Globalmapper Interface: Added Glaciation Map Epha Dryas III
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Boreal 2

2019 Globalmapper Interface: Added Glaciation Map Epha Boreal 2
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Boreal 1
2019 Globalmapper Interface: Added Glaciation Map Epha Boreal 1
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Preboreal 2
2019 Globalmapper Interface: Added Glaciation Map Epha Preboreal 2
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Preboreal 1
2019 Globalmapper Interface: Added Glaciation Map Epha Praeboreal 1
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Atlanticum 2
2019 Globalmapper Interface: Added Glaciation Map Epha Atlanticum 2
2019 Globalmapper Sites Interface: Added Glaciation Map Epha Alleröd
2019 Globalmapper Interface: Added Glaciation Map Epha Alleröd
2019 Amendments to Utilities dialog: New Button and Checkbars for Age-Depth Graph construction
2019 Amendments to GaussWM dialog: (Menu-item) Added Direct Age-Depth graph construction
2019 Amendments to GaussWM dialog: (Integer Field) Added Absolute Zero Depth scaling
2019 Amendments to GaussWM dialog: (Menu-item) Added Table for IMSL RLINE Age-Depth 2019 2019
2019 Amendments to GaussWM dialog: (Menu-item) Statistics for Age-Depth graph construction
2019 Update to Winteracter 12.0 f

2019 Assembly of Edition 2019.6 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 North Africa ¹⁴C-database added to installation (N=3757 dates, 958 sites, 93,7% georef)
2019 Added archaeological ¹⁴C-data set: Ifri El Baroud, Morocco, Iberomaurusian (Poti & 2019)
2019 Amendments to GaussWM dialog: New extended run sik-copy of Age-Depth graph
2019 Amendments to GaussWM dialog: New Age-Depth graph (new menus: View & Export)
2019 Amendments to Age-Depth-Model-Construction dialog: Dialog size reduction to fit notebook
2019 The First Book (Fifth Edition) of Incomplete ¹⁴C-Site Chronologies
2019 Unified ¹⁴C-Database CalPal-Holocene-Palaeolithic (N=54103 dates, 10743 sites, 93.8% georef)
2019 Amendments to Chronology Composer: Enhanced (*10) letter scaling (graph variables)
2019 Amendments to Chronology Composer: Constant letter height (graph legend)
2019 Amendments to Chronology Composer: New Listmatch (Pull-down Menu) for Country selection
2019 New Climate Record: Spain Padul-15-05, Med Forest Taxa 12-0 ka calBP (Ramos-Román & 2018)
2019 New Climate Record: Peloponnese KTR-2 $\delta^{18}\text{O}$, 8.65-7.98 ka calBP (Peckover & 2019)
2019 New Climate Record: Peloponnese KTR-2 $\delta^{13}\text{C}$, 8.65-7.98 ka calBP (Peckover & 2019)
2019 New Climate Record: Peloponnese KTR-2 $\delta^{18}\text{O}$, 12.5-6.5 ka calBP (Peckover & 2019)
2019 New Climate Record: Peloponnese KTR-2 $\delta^{13}\text{C}$, 12.5-6.5 ka calBP (Peckover & 2019)

2019 Assembly of Edition 2019.5 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 Bug Fix: Variable Dimensions increased from 60000 to 80000 (max database/spreadsheet size)
2019 Assembly of Edition 2019.4 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 Unified ¹⁴C-Database CalPal-North-Africa (N=3728 dates, 958 sites, 93.6% georef)
2019 Unified ¹⁴C-Database CalPal-Europe (N=42581 dates, 8672 sites, 92.3% georef)
2019 Unified ¹⁴C-Database CalPal-Holocene-Palaeolithic (N=55409 dates, 10697 sites, 92.5% georef)
2019 Globalmapper Sites Interface: Added Map Country Boundaries (Natural Earth Version 4.1.0)
2019 Globalmapper Interface: Added Map Country Boundaries (Natural Earth Version 4.1.0)
2109 Amendments to Chronology Composer: New Listmatch (Pull-down Menu) for Country selection
2019 New Function in Database Calibration Dialog: Check (Excel-write) for LabCode doublets
2019 New Functionality in Database Calibration Dialog: Database Unification Quality Control
2019 Amendments to CalPal: Variable dimensions increased from 60.000 to 80.000
2019 Added ¹⁴C-Database Iberian Peninsula (N=4385 dates, 1016 sites, 100% georef), Balsera & (2015)
2019 Added ¹⁴C-Database Palaeolithic (N=12077 dates, 2465 sites, 99% georef), Vermeersch (2019)
2019 Added ¹⁴C-Database North Africa (N=3086 dates, 416 sites), Manning and Timpson (2014)
2017 New Function in Reservoir Explorer: Checkbox for optional ¹⁴C-scale Barcode Representation
2017 New Record in Reservoir Explorer: Shir Northeast Area, Buildings A-B Sequence (Karin Bartl)
2019 Amendments to Chronology Composer: Screen is now correctly refreshed for large data sets
2019 The First Book of Incomplete ¹⁴C-Site Chronologies (Second Edition)
2019 New Function in Chronology Composer: Storage of SPD as Climate Select File
2019 New Function in Chronology Composer: On-graph documentation of SPD-construction
2019 New Function in Chronology Composer: Summed Probability Distribution (Variable Position)
2019 PlotConv for Winteracter 12.0e Recompiled with Window AlwaysOnTop and NoMinimization
2019 Holocene Archaeological Database: 42937 dates; 92.0 % georef; 8709 sites (xls/xlsx, ASCII)
2019 New Climate Record: Morocco Grotte de Piste $\delta^{13}\text{C}$ (Wassenburg & 2016)

2019 New Climate Record: Morocco Grotte de Piste $\delta^{18}\text{O}$ (Wassenburg & 2016)
2019 New Climate Record: North Africa Humidity Index (Wu & QSR 2017)
2019 New Climate Record: Core CP10-11 $\delta^{13}\text{C}$ (Jiawang Wu pers comm June 2019)
2019 New Climate Record: Core CP10-11 $\delta^{18}\text{O}$ (Jiawang Wu pers comm June 2019)
2019 New Climate Record: Core CP10-11 Cr/Al (Jiawang Wu pers comm June 2019)
2019 New Climate Record: Core CP10-11 Mg/Al (Jiawang Wu pers comm June 2019)
2019 Bugfix in GaussWM Dialog: Corrected screen refresh for time-series graph prior to file-storage
2019 Amendments to GaussWM Dialog: File selector subroutine simplified
2019 Amendments to GaussWM Dialog: File selector path for file storage set to c:\calpal\select
2019 Amendments to Chronology Composer: Y-Position synchronisation of trackbar with new docu
2019 Amendments to Chronology Composer: Automatically produced documentation (Titel, Method)
2019 Bugfix in Chronology Composer: Double identical Country in pulldown menu corrected
2019 Added ^{14}C -Database British Isles (N=30516 dates, xlsx-format), courtesy Andrew Bevan (2018)
2019 Added Help/Map Documentation of ^{14}C -Database South America (Riris & Arroyo-Kalin, 2019)
2019 Added ^{14}C -Database South America (N=5547 dates, xlsx-format) by Riris & Arroyo-Kalin (2019)
2019 Assembly of Edition 2019.3 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-database
2019 The First Book of Incomplete ^{14}C -Site Chronologies (First Edition)
2019 New Climate Record: Ascunsă Cave (Romania), POM2, $\delta^{18}\text{O}$ (Drăgușin & 2014)
2019 Amendments to Utilities: Automated check for doublets/twins in short & longlived material logs
2019 New Function in Database Import Dialog: Button/Integer-Spinmenu to filter by dating precision
2019 New Functions in Database Import Dialog: Rapid-select menu for Culture,Phase,Type,Info
2019 New Functions in Database Import Dialog: Rapid-select menu for Country,Site,Period,Subperiod
2019 Amendments to Database Import Dialog: Menu-selected Material-type is written to search field
2019 Amendments to Database Import Dialog: Selected DB is maintained as default on reimport
2019 Update to Winteracter 12.0 e
2019 Holocene Archaeological Database: 43170 dates; 91.7 % georef; 8709 sites (xls/xlsx, ASCII)
2019 Amendments to Chronology Composer: All DB-variables are sorted, when dates are sorted
2019 Amendments to Chronology Composer: Selected Material documented in output files/tables
2019 New Function in Database Import Dialog : Button to select all longlived materials
2019 New Function in Database Import Dialog : Button to select all all shortlived materials
2019 New Function in Chronology Composer: Checkbox to filter all shortlived materials
2019 Amendments to Installation: Added longlived Material-type log-file
2019 Amendments to Installation: Added shortlived Material-type log-file
2019 New Function in Settings Dialog: Optional definition of "longlived" Material-type (edit/save)
2019 New Function in Settings Dialog: Optional definition of "shortlived" Material-type (edit/save)
2019 Amendments to Europe database: revision of Material & Species (~60% reduction of variables)
2019 New Menu Function in Globalmapper: complete lists of country-specific DB-entries
2019 New Menu Function in Chronology Composer: complete lists of country-specific DB-entries
2019 New Menu Function in Database Import Dialog: complete lists of all available DB-entries
2019 New Climate Record: Core MP50PC Mo/Al (Filippidi and deLange, 2019)
2019 Chronology Composer: Successful tests with artificial 1-country database (43 k dates, 10 k sites)
2019 New Function in Chronology Composer: Sequencing of PDF-kernel [with variable p(%)
2019 Amendments to Floating Zoom-Cut Dialog: Always-On-Top Window
2019 Bug Fix in GaussWM Dialog: Corrected Window Refresh following menu call of Check
2019 New Climate Record: Nar Lake (Anatolia), $\delta^{18}\text{O}$ (Jones & 2006; Dean & 2015)
2019 New Climate Record: Strašna peć Cave (Croatia), SPD-2, $\delta^{18}\text{O}$ (Lončar & 2019)
2019 New Climate Record: Strašna peć Cave (Croatia), SPD-2, $\delta^{13}\text{C}$ (Lončar & 2019)
2019 New Climate Record: Strašna peć Cave (Croatia), SPD-1, $\delta^{18}\text{O}$ (Lončar & 2019)
2019 New Climate Record: Strašna peć Cave (Croatia), SPD-1, $\delta^{13}\text{C}$ (Lončar & 2019)
2019 New Climate Record: Hudson Bay Ice Saddle Collapse Ca/Sr (Lochte & 2019)
2019 New Climate Record: Hudson Bay Ice Saddle Collapse $\delta^{18}\text{O}$ (Lochte & 2019)
2019 Assembly of Edition 2019.2 (Distributable 64 BIT OS, 32/64 Bit ODBC: xls/xlsx-ASCII-Database]
2019 Bug Fix in Floating Database Import Dialog: Corrected spreadsheet refresh for first select call
2019 Holocene Archaeological Database: 43084 dates; 89.7 % georef; 7844 sites (xls/xlsx, ASCII)
2019 Integrated Megalithic Archaeological Database (Paulsson, 2019): 69,8 % georeferenced
2019 Separately Added Megalithic Archaeological Database (Paulsson, 2019): 2395 dates, 336 sites
2019 New Climate Record: Flood Frequencies in Temperate Regions of Europe (Benito & 2015)
2019 New Climate Record: Flood Frequencies in Mediterranean Regions (Benito & 2015)

2019 Bug Fix in Chronology Composer: Multiple Select files logged – corrected file overwrite
2019 Added Archaeological Database: Neolithic Slovenia (N=260 ¹⁴C-ages), (Sraka 2014)
2019 Globalmapper Sites Interface: Added Map Flooding Croatia 2014
2019 Globalmapper Interface: Added Map Flooding Croatia 2014
2019 New Climate Record: Flooding Frequencies South of the Alps (Wirth & 2013)
2019 New Climate Record: Flooding Frequencies North of the Alps (Wirth & 2013)
2019 Added Select Data: Szederkény GaussWM (Jakucs, 2016).
2019 Amendments to Installation: Added xls-format GaussWM files (different sites: N=19)
2019 Amendments to Installation: Added New Subdirectory: GaussWM\DataSets
2019 Update to Winteracter 12.0 d
2019 Enhancement to Reservoir Explorer Dialog: Added SELECT symbol selection floating dialog.
2019 Enhancement to Reservoir Explorer Dialog: Added SELECT symbol size pulldown menu.
2019 Aesthetic Refinement to CalCurveConstruction Dialogs: Enlargened symbol size pull-down menu
2019 Correction in CalTable Dialog: To avoid unnecessary menu refreshments: MouseMove disabled.
2019 Bug Fix in CalCurveConstruction Dialogs: Missing first digit for all 24 Bit colours (“blue error”).
2019 Globalmapper Sites Interface: Added Map (IHME D6) Hydrology Greece (BGR)
2019 Globalmapper Interface: Added Map (IHME D6) Hydrology Greece (BGR)
2019 Globalmapper Sites Interface: Added Map (IHME E5) Hydrology Danube Delta (BGR)
2019 Globalmapper Interface: Added Map (IHME E5) Hydrology Danube Delta (BGR)
2019 Globalmapper Sites Interface: Added Map (IHME E6) Hydrology West Turkey (BGR)
2019 Globalmapper Interface: Added Map (IHME E6) Hydrology West Turkey (BGR)
2019 Globalmapper Sites Interface: Added Map (IHME D5) Hydrology Pannonian Basin (BGR)
2019 Globalmapper Interface: Added Map (IHME D5) Hydrology Pannonian Basin (BGR)
2019 Assembly of Edition 2019.1 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2019 Added Archaeological Database: Megalithic (N=2410 ¹⁴C-ages), (Paulsson, 2019)
2019 Update to Winteracter 12.0 c
2019 Amendments to Globalmapper Dialog: coordinate conversion routine (degrees->decimal, ASCII)
2019 New Climate Data: Model Mean Annual Precipitation Crete 0-11 ka (Rohling & 2019)
2019 Added Select Data: Erkelenz-Kückhofen Decadel ¹⁴C-Dendro 5095-5313 calBC (Weninger&2001)
2019 Added Select Data: Vinča-Belo GaussWM (9.3-4.7 m, Vinča A-C, Tasić, 2015)
2019 Added Select Data: Pityerdomb GaussWM (Bánffy, 2004).
2018 Holocene Archaeological Database: 41197 dates; 91.5 % georef; 8575 sites (32/64 Bit, ASCII).
2019 Holocene Archaeological Sites: 9283 sites, 97.1 % georeferenced.
2019 Added Georeferenced Site Data: Ukraine (Tripolje CII, Usatovo, N=518 sites), (Manzura 2005).
2019 Added Georeferenced Site Data: Ukraine (Cucuteni B, N=662 sites), (Manzura 2005).
2019 Added Georeferenced Site Data: Ukraine (Cucuteni AB, N=411 sites), (Manzura 2005).
2019 Added Georeferenced Site Data: Ukraine (Cucuteni A, N=801 sites), (Manzura 2005).
2019 Added Georeferenced Site Data: Ukraine (Precucuteni-Tripolje A, N=203 sites), (Manzura 2005).
2019 Added Georeferenced Site Data: Chalcolithic (KGK VI & KSBI, N=121 sites), (Krauß 2008).
2019 Added Georeferenced Site Data: Late Neolithic (Marica, N=106 sites), (Krauß 2008).
2019 Added Georeferenced Site Data: Late Neolithic (Karanovo III-IV, N=64 sites), (Krauß 2008).
2019 Added Georeferenced Site Data: Middle Neolithic (Karanovo II/III-III, N=60 sites) (Krauß 2008).
2019 Added Georeferenced Site Data: Early Neolithic (White on Red, N=104 sites), (Cuicano 2013).
2019 Added Georeferenced Site Data: Early Neolithic (pre-Karanovo, N=37 sites), (Krauß 2008).
2019 Added Georeferenced Site Data: Körös in Hungary (N=720 sites), (Anders,Siklosi Paluch & 2012).
2019 Added Georeferenced Site Data: Starčevo in Romania (N=319 sites), (Luca & 2011).
2019 Added Georeferenced Site Data: Starčevo in SW Pannonian Basin (N=94 sites), Kalicz & 1998).
2019 Added Georeferenced Site Data: Vinča D (N=39 sites), (Whittle & 2016).
2019 Added Georeferenced Site Data: Vinča C (N=63 sites), (Whittle & 2016).
2019 Added Georeferenced Site Data: Vinča B2 (N=50 sites), (Whittle & 2016).
2019 Added Georeferenced Site Data: Vinča B1 (N=55 sites), (Whittle & 2016).
2019 Added Georeferenced Site Data: Vinča A (N=55 sites), (Whittle & 2016).
2019 Holocene Archaeological Sites: 8575 sites, 96.7 % georef.
2019 Holocene Archaeological Database: 41134 dates; 91.5 % georef; 8575 s (32/64 Bit, ASCII)
2019 Amendments to Mapping Project: Unified xls/xlsx-Format of Archaeological Sites Database).
2019 Globalmapper Sites Interface: Added Map (GeoTifColour) Löss Europe (Haase & 2007).
2019 Globalmapper Interface: Added Map (GeoTifColour) Löss Europe (Haase & 2007).
2019 Globalmapper Sites Interface: Added Map (GeoTifColour) Löss Germany (Lehmkuhl & 2018).

2019 Globalmapper Interface: Added Map (GeoTifColour) Löss Germany (Lehmkuhl & 2018)
2019 Globalmapper Sites Interface: Added Map (GeoTifColour) Löss Pannonian Basin (Lindner&2017)
2019 Globalmapper Interface: Added Map (GeoTifColour) Löss Pannonian Basin (Lindner&2017)
2019 Added Georeferenced Site Data: Early Vinca (Milojic A-C), John Chapmann 1981
2019 Added Georeferenced Site Data: Early LBK (LBK I), Anna-Leena Fischer 2016 (Abb.1).
2019 Added Georeferenced Site Data: Starčevo, Vladimir Milojčić 1951 (Abb.3).
2019 Added Georeferenced Site Data: LBK, Vladimir Milojčić 1951 (Abb.3).
2019 Amendments to Mapping Project: Added Help/Documentation for Archaeological Maps
2019 Amendments to Mapping Project: Added Installation Structure
2019 New Mapping Project: Archaeological Site Distributions (Historical and Modern Maps)
2019 Assembly of Edition 2019.0 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2019 Globalmapper Sites Interface: Added Map (GeoTifColour) Global Topography MN15_GRD
2019 Globalmapper Interface: Added Map (GeoTifColour) Global Topography MN15_GRD
2019 Globalmapper Sites Interface: Added Map (GeoTifColour) Global Relief Hyp_Hr_Sr_Ob_SR.tif
2019 Globalmapper Interface: Added Map (GeoTifColour) Global Relief Hyp_Hr_Sr_Ob_SR.tif
2019 Bug Fix in Climate Data Import Dialog: Warning issued for requested non-standard file-name
2019 Climate Data Integrated: Iran K13-1 Mg/Ca (Carolin & 2019)
2019 Climate Data Integrated: Iran K13-1 $\delta^{13}\text{C}$ (Carolin & 2019)
2019 Climate Data Integrated: Iran K13-1 $\delta^{18}\text{O}$ (Carolin & 2019)
2019 Climate Data Integrated: Core PS009PC, Ba/Al, Nile Outflow (Hennekam & 2014)
2019 Bug Fix in Globalmapper Dialog: Write format of sites.txt file corrected for > 10000 sites
2019 Amendments to Multiclimature Composer: Added multiclimature file Black Sea Connection
2019 Amendments to About & Citation Dialogs: Automatic Update of Version Nr
2019 Update to Winteracter 12.0 b
2019 Amendments to Multigroup Composer: On-Screen Field counts adjusted -1 (to not-count 'nd')
2019 Amendments to Multigroup Composer: Numeric leading/trailing-edge ages written to graph
2019 Amendments to Chronology Composer: Screen Reset following file change (ASCII and Excel)
2019 Amendments to Chronology Composer: On-Screen Field added for Excel database import errors
2019 Integration of Monkodonja ^{14}C -data Bronze Age (N=50) (pers comm Bernhard Hänsel 2012)
2019 Integration of EUBAR ^{14}C -database (Capuzzo & 2014) European Bronze Age (N=1700 dates)
2019 Bug Fix in Installation: Missing html Help-file for INTCAL SET 26 added to Installation file
2019 Theoretical Normalization routines tested for CalPal-2018-Hulu calcurve
2019 Refined Calcurve CalPal-2018-Hulu (based on Hulu H82 & MSD & MSD): Documentation
2019 Updated Help for new Calcurve Construction files Hulu H82 and Hulu MSD & MSD
2019 Amendments to ODBC CalData Import Dialog: Added menu item Edit for new calcurve file
2019 New CalCurve Construction File: Southon & 2012 (Hulu H82, 10.6-26.8 ka calBP, DCF)
2018 Assembly of Edition 2018.8 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Amendments to Installation: Added Calcurve CalPal-2018-Hulu pulldown menu files (Left/Right)
2018 New Calcurve CalPal-2018-Hulu (based on Hulu MSD & MSL): Documentation
2018 New Calcurve Added: CalPal-2018-Hulu 0-60 ka calBP (.cal & .sel)
2018 New CalCurve Construction File: Cheng & 2018 (Hulu MSD & MSL, 18.6-54.0 ka calBP, DCF)
2018 Amendments to Globalmapper Dialog: Redesign of Interface layout
2018 Amendments to Globalmapper Dialog: Initialisation of Database variables (ASCII & Excel)
2018 Amendments to Globalmapper Dialog: Unification of ASCII- and Excel Import routines
2018 Amendments to Globalmapper Dialog: Redesign of filter functions (automated variable lists)
2018 Amendments to Chronology Composer: New Menu item: Lists of variables in the database
2018 Amendments to Site Cartography Dialog: SRTM_Table_Example.txt added to installation
2018 Amendments to Globalmapper Dialog: SRTM_Table_Example.txt added to installation
2018 Amendments to Globalmapper Site Cartography Dialog: ASCII-Editor added to Menu
2018 Amendments to Globalmapper Dialog: ASCII-Editor added to Menu
2018 Amendments to Globalmapper Dialog: ASCII-Editor added to Menu
2018 Amendments to Site Cartography Dialog: Checkbox for multiple calls to Globalmapper
2018 Amendments to Globalmapper Dialog: Checkbox for multiple calls to Globalmapper
2018 Assembly of Edition 2018.7 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Holocene Archaeological Database: 39492 dates; 90.8 % georef; 8020 sites (32/64 Bit, ASCII)
2018 High-Res Shapefile (Bohn & 2003): D-Mesophytic & hygromesophytic mixed coniferous forests
2018 High-Res Shapefile (Bohn & 2003): F-Mesophytic deciduous broad-leaved & mixed coniferous
2018 High-Res Shapefile (Bohn & 2003): G-Thermophilous mixed deciduous broad-leaved forests

2018 High-Res Shapefile (Bohn & 2003): J-Mediterranean sclerophyllous forests & scrubs
2018 High-Res Shapefile (Bohn & 2003): U-Floodplains, estuaries & moist sites
2018 Globalmapper Interface: European Vegetation (Bohn & 2003) Selectable Maps Treeview
2018 Globalmapper Interface: European Vegetation (Bohn & 2003) Graphic Map Preview
2018 Climate Data Integrated: Refugio Cave CT (Walczak & 2015)
2018 Amendments to Globalmapper Site Cartography Dialog: Updated Help file
2018 Amendments to Globalmapper Dialog: Updated Help file
2018 Amendments to Globalmapper Site Cartography Dialog: Added Excel Viewer
2018 Amendments to Globalmapper Site Cartography Dialog: All Amendments as for Globalmapper
2018 Amendments to Globalmapper Dialog: Concordance Table for Sitenames & Map Numbers
2018 Amendments to Globalmapper Dialog: New Function Site Numbers
2018 Amendments to Globalmapper Dialog: Bubble-Up Info on selected Globalmapper Buttons
2018 Colour Shaders added to Globalmapper: Tailored to Bio1,Bio6, Bio10,Bio11, Bio12,BIO14
2018 Bug Fix in Globalmapper Dialog: Undefined File-Open (Fortran Unit 22) corrected
2018 Map & Globalmapper Interface: WorldClim.Org Bio 1,6,10,11,12,14+SRTM-Europe/NearEast
2018 Map & Globalmapper Interface: WorldClim.Org Bio14 Precipitation Driest Month
2018 Map & Globalmapper Interface: WorldClim.Org Bio12 Annual Precipitation
2018 Map & Globalmapper Interface: WorldClim.Org Bio11 Mean Temperature Coldest Quarter
2018 Map & Globalmapper Interface: WorldClim.Org Bio10 Mean Temperature Warmest Quarter
2018 Map & Globalmapper Interface: WorldClim.Org Bio 6 Min Temperature Coldest Month
2018 Map & Globalmapper Interface: WorldClim.Org Bio 1 Annual Mean Temperature
2018 New Function in Multigroup Composer: Arrow for begin/end-SPD, depending on sort method
2018 Amendments to CalPal: General definition of version descriptor in USE CALPAL_A_VARIABLES
2018 Amendments to Multigroup Composer: Comprehensive Testing of Constant Fraction Sort
2018 Amendments to Multigroup Composer: Constant Fraction Sort added (leading & trailing edge)
2018 Amendments to Multimethod Composer: Refinement of on-screen filter documentation
2018 Amendments to Multimethod Composer: Refinement of in-file filter documentation
2018 Amendments to Multigroup Composer: Refinement of on-screen filter documentation
2018 Amendments to Multigroup Composer: Refinement of in-file filter documentation
2018 Bug Fix in Chronology Composer: Dots & Error Bars functionality is now correct for all options
2018 Amendments to Climate Data Import Dialog: Fine-Tuning format space enlarged to F6.0
2018 Climate Data Refined: Black Sea 87Sr/86Sr Isotopes (Major & 2006, CalPal Record Nr 156)
2018 Climate Data Integrated: Black Sea 87Sr/86Sr Isotopes (Ankindinova & 2018)
2018 Amendments to Chronology Composer: New progress bar introduced for second half of run
2018 Bug Fix in Chronology Composer: Crash is caught by OK/Cancel field for interrupted long runs
2018 Amendments to Chronology Composer: Green marker field remains green until end of run
2018 Amendments to Chronology Composer: It is now possible to edit the select file prior to storage
2018 Amendments to Chronology Composer: Unification of multiple code for the six CC-variables
2018 Chronology Composer test: Confirmation that leading/trailing-edge ages are correct (Dynasty I)
2018 Bug Fix in Chronology Composer: Culture barcode graph corrected to include number of dates
2018 Assembly of Edition 2018.6 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Amendments to Chronology Composer: numeric sort ages added for all barcode variables
2018 Climate Data Integrated: Agios Floros Biomarker δD (Norström & 2018), 0 – 6 ka calBP
2018 Amendments to Excel Select File: Simultaneous show of xls (32 Bit) and xlxs (64 Bit) names
2018 Bug Fix in Reservoir Explorer: Safe file deletion implemented for select.log operations
2018 Amendments to ODBC CalData Import Dialog: Independent operation of ASCII and Excel data
2018 Amendments to ODBC CalData Import Dialog: In-File Docu of Age-Shifts and Age-Inversion
2018 Amendments to ODBC CalData Import Dialog: Shift-Age Trackbars (14C and Calendric direction)
2018 Amendments to ODBC CalData Import Dialog: Spreadsheet View of ASCII and Excel data
2018 Amendments to ODBC CalData Import Dialog: Screen documentation of study file name
2018 Amendments to ODBC CalData Import Dialog: Optional automated data-fit window introduced
2018 Amendments to ODBC CalData Import Dialog: Zoom Trackbar for Older Age and Width deleted
2018 Amendments to ODBC CalData Import Dialog: Added prompt for OK and CANCEL buttons
2018 Amendments to ODBC CalData Import Dialog: Information prompt added to select.log update
2018 Bug Fix in ODBC CalData Import Dialog: file storage denial for already existing filenames
2018 New CalData set: Pearson && 2018 (3500-3700 cal2k): Santorini Eruption Age Interval
2018 Bug Fix in ODBC CalData Import Dialog: added file-update for select_log_default.log
2018 Bug Fix in ODBC CalData Import Dialog: added file-update for select_safety.log

2018 Bug Fix in ODBC CalData Import Dialog: select.log format correction for N>100 files
2018 Amendments to Chronology Composer: Mouse-Tip Bubble-Up Help for selected dialog variables
2018 Amendments to Chronology Composer: in-file Documentation of sort ages for Sitetypes
2018 Amendments to Chronology Composer: in-file Documentation of sort ages for Cultures
2018 Amendments to Chronology Composer: in-file Documentation of sort ages for Subperiods
2018 Amendments to Chronology Composer: in-file Documentation of sort ages for Periods
2018 Amendments to Chronology Composer: in-file Documentation of sort ages for Sites
2018 Amendments to Chronology Composer: Documentation of applied Sorting Method
2018 Amendments to Chronology Composer: Floating Select Dialogs AlwaysOnTop
2018 Amendments to Chronology Composer: Main Window AlwaysOnTop
2018 Climate Data Integrated: North China $\delta^{13}\text{C}$ (Zhang & 2018), 0 – 11 ka calBP
2018 Climate Data Integrated: North China $\delta^{18}\text{O}$ (Zhang & 2018), 0 – 11 ka calBP
2018 Bug Fix in Chronology Composer: Filter for min number of dates is now correctly re-initialised
2018 Amendments to Chronology Composer: Checkbox introduced to distinguish Timing & Sorting
2018 Assembly of Edition 2018.5 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Amendments to Climate Composer: Filename shown on Dialog
2018 Amendments to Climate Composer: 3-Radiobutton enhanced scaling of titel position
2018 Amendments to Climate Composer: 3-Radiobutton enhanced scaling of Stretch trackbar
2018 Update to Winteracter 12.0 a
2018 Amendments to Globalmapper Dialog: Header Text for filtered-data file installed
2018 Amendments to Globalmapper Dialog: Filters on SITEINFO and SITETYPE installed
2018 Multiclimature Graph Integrated: ^{14}C -Barcode Çatalhöyük East & West vs GISP2- $\delta^{18}\text{O}$
2018 Multiclimature Graph Integrated: Shir & Sabi Abyad ^{14}C -Context vs GISP2- $\delta^{18}\text{O}$ & Jeita Cave- $\delta^{18}\text{O}$
2018 Climate Data Context File Integrated: ^{14}C -Barcode Sabi Abyad by Cemetery
2018 Climate Data Context File Integrated: ^{14}C -Barcode Sabi Abyad by Level
2018 Climate Data Context File Integrated: ^{14}C -Barcode Çatalhöyük West by Layer
2018 Climate Data Context File Integrated: ^{14}C -Barcode Çatalhöyük East by Layer
2018 Upgrade to Winteracter 12.0
2018 Climate Data Integrated: Père Noël Cave Belgium $\delta^{18}\text{O}$ 8.2 ka calBP event (Allan & 2018)
2018 Climate Data Integrated: Mavri Trypa S1 $\delta^{13}\text{C}$ (Finné & 2017)
2018 Climate Data Integrated: Mavri Trypa S1 $\delta^{18}\text{O}$ (Finné & 2017)
2018 Climate Data Integrated: Tenaghi Philippon Fern Spores (Schemmel & 2017)
2018 Climate Data Integrated: Tenaghi Philippon CPI-index (Schemmel & 2017)
2017 Multiclimature Graph Integrated: Shir Area Barcodes & Climate Records (Karin Bartl)
2018 Amendments to Chronology Composer Dialog: Initialise set to Show Text and Sort on Age
2018 Holocene Archaeological Database: 39316 dates; 91.1 % georef; 8026 sites (32/64 Bit, ASCII)
2018 Climate Data Integrated: Mawmluh Cave Smoothed $\delta^{18}\text{O}$ 4440-3780 calBP (Kathayat & 2018)
2018 Climate Data Integrated: Mawmluh Cave *Annual $\delta^{18}\text{O}$ 4440-3780 calBP (Kathayat & 2018)
2018 Assembly of Edition 2018.4 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Amendments to Chronology Composer: Pulldown Menu for N=1 Country information
2018 Update of the Acknowledgements under About->Documentation->Thanks
2018 Amendments to Database: Neolithic High Resolution Database added to installation
2018 Amendments to GaussWM dialog: LBK-Bischoffsheim wiggle-matching file added to installation
2018 Amendments to GaussWM dialog: LBK-Schwanfeld wiggle-matching file added to installation
2018 Amendments to GaussWM dialog Help File: Software Test Results
2018 Holocene Archaeological Database: 38647 dates; 90.9 % georef; 7825 sites (32/64 Bit, ASCII)
2018 Climate Data Integrated: Sidi Ali Morocco PC1 (Zielhofer & 2017)
2018 Climate Data Integrated: Sidi Ali Morocco $\delta^{18}\text{O}$ (Zielhofer & 2017)
2018 Update to Winteracter 11.0 i
2018 Bug Fix in Globalmapper Dialog: previously, default ASCII & Excel Databases were unnamed
2018 ODBC-Import/Export: Test (Win10) of Excel-connectivity (64/32 bit), redesigned ODBC-info
2018 Holocene Archaeological Database: 38579 dates; 90.3 % georef; 7665 sites (32/64 Bit, ASCII)
2018 Assembly of Edition 2018.3 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version)
2018 Holocene Archaeological Database: 38183 dates; 90.5 % georef; 7655 sites (32/64 Bit, ASCII)
2018 Amendments to Chronology Composer: Single Sitetype selection added data select & edit
2018 Amendments to Chronology Composer: Single Culture selection added data select & edit
2018 Amendments to Chronology Composer: Single Subperiod selection added select & edit
2018 Amendments to Chronology Composer: Single Period selection added select & edit

2018 Bug Fix in Chronology Composer: 14C-Ages for Selected Site were written twice to file
2018 Amendments to GaussWM Dialog: ClearGrid Function added to Menu (ASCII-unload taken out)
2018 Climate Data Integrated: Bengal ISM Site U1452C-1H Greyscale 0-60 ka (Weber & 2018)
2018 Climate Data Integrated: Bengal ISM Site 126KL Wet Bulk Density (Weber & 2003)
2018 Climate Data Integrated: Bengal ISM SO188-342KL $\delta^{13}\text{C}$ (Contreras-Rosales & 2014)
2018 Climate Data Integrated: Bengal ISM SO188-342KL δD (Contreras-Rosales & 2014)
2018 Amendments to Multiclimature Composer: Added Function Import from Chronology Composer
2018 Amendments to Chronology Composer: Added Function Export to Multiclimature Composer
2018 Assembly of Edition 2018.2 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version]
2018 Update to Winteracter 11.0 h
2018 New Dialog: Chronology Composer: Added Help file
2018 New Dialog: Chronology Composer: Quality Control of table output
2018 New Dialog: Chronology Composer: Constant Fraction Timing for Begin/End of all variables
2018 New Dialog: Chronology Composer: Quality Control (Graphic-Output=Context-File)
2018 New Dialog: Chronology Composer: Complete In-File Documentation of Variables
2018 New Dialog: Chronology Composer: Finetuning (Sort Barcode-Graph on MaxAge of Variables)
2018 New Dialog: Chronology Composer: Finetuning (Filter for minimum number dates)
2018 New Dialog: Chronology Composer: Finetuning (Counting of dates per Variable)
2018 New Dialog: Chronology Composer: Site File Export to Chronology Composer
2018 New Dialog: Chronology Composer: Finetuning (letter size and text position, barcode height)
2018 New Dialog: Chronology Composer: Variables defined: Site,Period,Subperiod,Culture,Sitetype
2018 New Dialog: Chronology Composer: Single Date Graphs for selectable Country
2018 Amendments to Info Subroutine: Window AlwaysOnTop
2018 Amendments to Edit Subroutine: Window AlwaysOnTop
2018 Update to Winteracter 11.0 g
2018 Assembly of Edition 2018.1 (Distributable 64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version]
2018 New Dialog: Chronology Composer, Added Functionality (ASCII and Excel File-Import)
2018 New Dialog: Chronology Composer, Added Functionality (Dates: Sort by Cal-Age)
2018 New Dialog: Chronology Composer, Added Functionality (Radiobutton: Barlength Confidence)
2018 New Dialog: Chronology Composer, Added Functionality (Menu: RCC Options, Colours, Tables)
2018 New Dialog: Chronology Composer, Added Functionality (Menu: Print, Export, Help)
2018 New Dialog: Chronology Composer, Added Functionality (Toolbar, Screen Age Measurements)
2018 New Dialog: Chronology Composer (*Prototype for Sites*, awaiting Added Functionality)
2018 Update to Winteracter 11.0f
2018 Example File added to MultiClimate Composer: 4.2 ka calBP India, N-Himalaya, Mediterranean
2018 Example File added to MultiClimate Composer: Archaeological Site Intervals
2018 Amendments to Database Dialog: Delete Line disabled for 1st line in spreadsheet
2018 Amendments to GaussWM dialog: Assiros data sets (xls, ASCII) added to installation
2018 Amendments to GaussWM dialog: Improved GaussWM Terminology (runs, steps, repeat)
2018 Amendments to GaussWM dialog: Smallest value of XSIGMA set to 1.0 yr in Multi-Run routines
2018 Amendments to GaussWM dialog: Enhanced Multiple Random Number Generator Seeding
2018 Amendments to GaussWM dialog: Time-Series Print/Export for Convergence Graph
2018 Amendments to GaussWM dialog: New Convergence Graph for Multiple Runs
2018 Assembly of Edition 2018.0 [64 BIT OS, 32/64 Bit ODBC, ASCII-Database Version]
2017 Amendments to GaussWM dialog: Time-Series interim results On-Screen for Multiple Runs
2017 Climate Data Integrated: Norwegian Sea MD95-2011 SST (Andersson & 2010)
2017 Climate Data Integrated: Spannagel Cave $\delta^{18}\text{O}$ COMNISPA II (Fohlmeister & 2013)
2017 Climate Data integrated: ISM Kotla Dahar $\delta^{18}\text{O}$ (Dixit & 2014)
2017 Climate Data integrated: ISM Indus 63KA $\delta^{18}\text{O}$ (Staubwasser & 2017)
2017 Climate Data integrated: ISM Lake Nara Mn/Fe Ratio (Nakamura & 2016)
2017 Climate Data integrated: ISM Sahiya Cave Stalagmite $\delta^{18}\text{O}$ smoothed
2017 Climate Data integrated: ISM Sahiya Cave Stalagmite $\delta^{18}\text{O}$ (Kathayat & 2017)
2017 Quality Control Test Runs on GaussWM: χ^2 in comparison to Non-Central χ^2 added to Report
2017 Climate Data integrated: LIA China Dust Frequency SST 1617-1953 AD (Jiongxin Xu, 2017)
2017 Holocene Archaeological Database: 38140 dates; 90.1 % georef; 7648 sites (32/64 Bit, ASCII)
2017 Radiocarbon Database integrated: Italy (Palmesino & 2017, N=664 Partial CalPal Variables)
2017 Demographic ^{14}C -Graph integrated: British Isles (Bevan & 2017, Fig.1C scanned & digitized)
2017 Radiocarbon Database integrated: British Isles (Bevan & 2017, N=30500 Partial CalPal Variables)

2017 Climate Data integrated: EAWM Lake Huguang Titanium, EAWM (Yancheva & 2007)
2017 Climate Data integrated: EAWM Lake Huguang Magnetic Susceptibility (Yancheva & 2007)
2017 Climate Data integrated: EAWM Fukugaguchi Cave FG01 $\delta^{18}\text{O}$ Stalagmite (Sone & 2013)
2017 Update to Winteracter 11.0e
2017 Climate Data integrated: Gotland Basin Site 303600 Loss on Ignition (LOI) (Warden & 2017)
2017 Climate Data integrated: Gotland Basin Site P435-2 Loss on Ignition (LOI) (Warden & 2017)
2017 Climate Data integrated: Core CP10/11 Ba/Al ratio (Jiawang Wu & QSR 2017)
2017 Climate Data integrated: Hongyuan Peat $\delta^{13}\text{C}$ (Y.T. Hong & 2003)
2017 Climate Data integrated: Westerlies Lake Quinghai Temperature (Jiaju Zhao & 2017)
2017 Climate Data integrated: Westerlies Lake Balikun Artemisia Pollen (Jiaju Zhao & 2017)
2017 Default Database set to CalPal ASCII-Format, optional 32/64 Bit Excel Import
2017 Assembly of Edition 2017.6 (Distributable 64 BIT OS, 32/64 Bit ODBC Version)
2017 Amendments to Database Management: Default Import/Export of CalPal-ASCII-Format Files
2017 Variables added to Database Dialog: SUBPERIOD, SITEINFO and SITETYPE
2017 Variables added to CalPal Excel ^{14}C -Database: SUBPERIOD, SITEINFO and SITETYPE
2017 Climate Data integrated: Strymon Valley Core LC1 Trees (Lespez & 2016)
2017 Update to Winteracter 11.0d
2017 Holocene Archaeological Database: 37879 dates; 89.5% georef; 7575 sites (Chappel-Ireland)
2017 Amendments to Multiclimater Composer: Added Screen Refresh Button
2017 Climate Data integrated: African Humid Period Gulf Guinea SST (Weldeab & 2007)
2017 Climate Data integrated: African Humid Period Gulf Guinea SSS (Weldeab & 2007)
2017 Climate Data integrated: African Humid Period Dust ODP658C (deMenocal & 2000)
2017 Climate Data integrated: African Humid Period Dust GC49 NorthAfrican Margin (McGee & 2013)
2017 Climate Data integrated: African Humid Period Dust GC27 NorthAfrican Margin (McGee & 2013)
2017 Climate Data integrated: African Humid Period Dust GC68 NorthAfrican Margin (McGee & 2013)
2017 Climate Data integrated: African Humid Period Dust 103GGC Bahamas (Williams & 2017)
2017 Climate Data integrated: African Humid Period Dust VM-234 MidAtlanticRidge (McGee & 2013)
2017 Holocene Archaeological Database supplement: 35548 dates; 88.6% georef; 6849 sites
2017 Climate Data integrated: MD95-2043 SST 0-25 ka calBP (Martrat & 2017)
2017 Amendments to F90copy: Added Button for 32->64 Bit compilation Helpfile (pdf)
2017 PlotConv for Winteracter 11.0c Recompiled with Window AlwaysOnTop
2017 Assembly of Edition 2017.5 (Distributable 32 BIT Version)
2017 Update to Winteracter 11.0c
2017 Acknowledgements for Radiocarbon Data: Updated
2017 Documentation: Links Checked and Updated
2017 Annual Precision Test of GaussWM randomizing sample order (for multi-runs and errors < 30 a)
2017 Bug Fix in GaussWM Dialog: Correction in Random Number Generator for CalScaleError
2017 Bug Fix in Reservoir Explorer: Colour Selection for Select files repaired (Red-Green-Blue-Black)
2017 Bug Fix in Reservoir Explorer: Barcode Projection Lines repaired (unneeded dots taken out)
2017 Climate Data integrated: Mondsee $\delta^{18}\text{O}$ Ostracods 7.7-8.7 ka calBP (Andersen & 2017)
2017 Holocene Archaeological Database supplement: 35210 dates; 88.7% georef; 6819 sites
2017 Bug Fix in GaussWM Dialog: Initialized STD field in Grid correctly set blank instead of 0
2017 Bug Fix in GaussWM Dialog: Excel Field Name 'Gausswm_Phase' shortened to 'GausswmPhase'
2017 Amendments to all Dialogs: PlotConv recompiled with Window AlwaysOnTop
2017 Bug Fix in GaussWM Dialog: Warning (with file-replacement) when Excel-file with STD=0 loaded
2017 Amendments to GaussWM Dialog: potentially graded colours introduced for statistic box
2017 Upgrade to Winteracter 11.0
2017 Bug Fix in CalTable: Grid Row Number Format expanded from Integer I4 to I5
2017 Assembly of Edition 2017.5 64 BIT IMSL-dlls replaced by distributable 64 BIT IMSL-dlls
2017 Assembly of Edition 2017.4 (Distributable 32 BIT Version)
2017 Amendments to Multiclimater Dialog: (Files Menu): *Close Multiclimater Record* added
2017 Amendments to Settings Dialog: Heinrich Layer ages (Sanchez Goñi & Harrison, 2010) added
2017 New Function in Settings Dialog: Tab for change of default RCC, Sapropel S1, Heinrich Events
2017 Amendments to Multiclimater Dialog: Info Fields added for Sapropel S1, Heinrich Layers
2017 Amendments to Multiclimater Dialog: Info Fields added for RCC-Line/Shades
2017 New Function in Multiclimater Dialog: Save/Open mcf file includes Sapropel S1, Heinrich Layers
2017 New Function in Multiclimater Dialog: Save/Open mcf file includes RCC-Lines/Shades
2017 New Menu Functions in Multiclimater Dialog: 24 Bit Colour Selector for Heinrich Layer Shades

2017 New Menu Functions in Multiclimature Dialog: 24 Bit Colour Selector for Sapropel S1 Shades
2017 New Menu Functions in Multiclimature Dialog: 24 Bit Colour Selector for RCC-Shades
2017 New Menu Functions in Multiclimature Dialog: 24 Bit Colour Selector for RCC-Line/Shading
2017 New Toolbar Function in Multiclimature Dialog: Optional Choice of Heinrich Layer Shading
2017 New Toolbar Function in Multiclimature Dialog: Optional Choice of Sapropel S1 Shading
2017 New Toolbar Function in Multiclimature Dialog: Optional Choice of RCC-Interval-Shading
2017 New Toolbar Function in Multiclimature Dialog: Optional Choice of RCC-Interval-Lines
2017 Amendments to F90_Copy: updated to include Correspondence Analysis routines
2017 New Function: Correspondence Analysis (Excel import) extended for 32/64 Bit (xls/xlsx)
2017 Amendments to Installation: 32 BIT Installation updated to include Correspondence Analysis
2017 Amendments to Installation: 64 BIT Installation updated to include Correspondence Analysis
2017 New Dialog: Correspondence Analysis Call added to Main Menu
2016 Update to Winteracter 10.10i

2017 Assembly of Edition 2017.3 (Distributable 32 BIT Version)

2017 New Function in Multiclimature Composer: Choice of Mouse Cursor for Screen Measurements
2017 New Toolbar in Multiclimature Composer: Choice of Mouse Cursor and Graticulates
2017 New Function in Multiclimature Composer: Mouse screen measurement of ages (CalBP-CalBC/AD)
2017 Amendments to Multiclimature Composer: Corrections to the calBC/AD number centralization
2017 Amendments to Reservoir Explorer: the calscale errors of selected dates were sometimes lost
2017 Amendments to Reservoir Explorer: Infocfield added, the 1st added set cannot contain 1 date
2017 Bug Fix in Reservoir Explorer: Spline crash when the 1st added data set contains only 1 date
2017 Bug Fix in Multigroup: Single Group Fields Number of Dates expanded I4-> I5 for large data sets
2017 Bug Fix in Multigroup: Field Total number of Dates expanded I5-> I7 for large data sets
2017 Test of Multigroup for Large Data Sets (presently single 35k, total 10*35k=350k)
2017 Climate Data integrated: Kinderlinskaya Cave, 0-11.7 ka calBP, $\delta^{18}\text{O}$ stalagmite KC-1 and KC-2
2017 Amendments to Installation: Ready-For-Use(Blank) Excel-Databases (32 & 64 Bit) added

2017 Assembly of Edition 2017.2 (Distributable 32 BIT Version)

2017 Mnemo-field Geographic (Latitude/Longitude) Decimal WGS84 added to Globalmapper Dialog
2017 Several bug fixes in Dialog Multiclimature Composer
2017 New Function in Dialog Multiclimature Composer: View/Edit of Multiclimature File Script
2017 Integration of new "14C-Prob as Climate-Context Files" functions in CalkN Dialog
2017 New Multiclimature File (Iran.mcf) added to installation, as well as required climate context files.
2017 New Function in Dialog Multiclimature Composer: Record Text can be turned off (via Text Size=0)
2017 New Function in Dialog Multiclimature Composer: Record Scale can be turned off (Radiobutton)
2017 Amendments to Dialog Multiclimature Composer: Screen Report if mcf contains non-existing file
2017 New Function in Dialog CalTable: Log of cal-distribution as climate file (with/without barcode)
2017 New Function in Dialog CalTable: Envelope for Cal-Distribution can be turned off (Checkbox)
2017 New Function in Dialog CalTable: Unlog climate-context file
2017 New Function in Dialog CalTable: Open/Edit new climate-context file
2017 New Function in Dialog CalTable: Storage of calibrated prob-distribution as climate-context file
2017 Climate Data integrated: Combined Lake Lisan & Dead Sea Levels 0-70 ka calBP
2017 Climate Data integrated: LC21 $\delta^{18}\text{O}$ Pachyderma (Grant & 2012)
2017 Climate Data integrated: Soreq $\delta^{18}\text{O}$ rescaled (Grant & 2012)
2017 Holocene Archaeological Database supplement: 33927 dates; 91.5% georef; 6716 sites

2017 Assembly of Edition 2017.1 (Distributable 32 BIT Version)

2017 Climate Data integrated: Red Sea GeoB 5844-2 $\delta^{18}\text{O}$, Early Holocene Moist Period
2017 Climate Data integrated: Adriatic Core ST04-1, %-Organic Carbon, Sapropel S1
2017 Climate Data integrated: Core V29-191, %-Hematite stained grains ('Bond Events'),0-12 ka calBP
2017 Climate Data integrated: Dim Cave $\delta^{13}\text{C}$, 10-90 ka calBP
2017 Climate Data integrated: Dim Cave $\delta^{18}\text{O}$, 10-90 ka calBP
2017 Climate Data integrated: SL110-SMEC, eMed, Nile Discharge & East African monsoon, 0-140 ka
2017 Climate Data integrated: SL110-KAOL, eMed, Nile Discharge & East African monsoon, 0-140 ka
2017 Climate Data integrated: Core SL71, Ionian Sea, Saharan Dust Flux, 0-185 ka
2017 Site Coordinates: EN Red-Painted added to Globalmapper Dialog (Courtesy RKrauß, CPetru)
2017 Amendments: Info added to F90copy function, stating how to build Excel32 Bit (xls) Version
2017 Update to Winteracter 10.10f
2017 Climate Data integrated: Central Italy Lake Mezzano Pollen Concentration , 4.2 ka calBP event
2017 Climate Data integrated: North ItalyRenella Cave Flowstone RL4 $\delta^{13}\text{C}$,4.2 ka calBP event

2017 New Function in Dialog GaussWM: Variable selection of Non-Central χ^2 Lambda value

2017 Amendments to Dialog GaussWM: Use of χ^2 or Non-Central χ^2 statistics added to Run Report

2017 Amendments to Dialog GaussWM: STD-RESULTS added to spreadsheet for Excel-Import

2017 Amendments to Dialog GaussWM: Select file included in optional backup to SIK-directory

2017 New Function: Optional Grid (Separate Horizontal and Vertical Lines) in Multiclimature Dialog

2017 New Function: Left-Mouse Screen-Position Age Measurement in Multiclimature Dialog

2017 Climate Data integrated: Lake Brazi (Romania) Chironomid-based Summer Temperature 0-11 ka

2017 Assembly of Edition 2017.0 (Distributable 32 BIT Version)

2016 Climate Data integrated: Kesang Cave $\delta^{18}\text{O}$

2016 Climate Data integrated: Lake Neor Dust Flux

2016 Climate Data integrated: Lake Neor TOC (%)

2016 Climate Data integrated: Renella Cave $\delta^{18}\text{O}$, North Italy, 4.2 ka calBP event

2016 Amendments to Installation: added 64 BIT Example xlsx-file to ODBC CalData Import dialog.

2016 Successful test for export/import of Libre Office 5.2.3. 64-BIT (Excel 2007-2013 XML [.xlsx]) files.

2016 Update to Winteracter 10.10e

2016 Routine F90copy added to Settings Dialog: transfer of Fortran routines from 64 to 32 Bit version

2016 Amendments to simplify programming and installation of two CalPal versions (32/64 Bit)

2016 Several bug fixes in Excel 32/64 Bit import routines

2016 New Function: ODBC Driver System Info (on Toolbar of ^{14}C -Database Import Dialog)

2016 Amendments to Excel 32/64-Bit Import: Same Driver Subroutine used in all routines

2016 New Function: Optional Selection of 32/64 Bit Database (Dialog: ODBC Climate Record Import)

2016 New Function: Optional Selection of 32/64 Bit Database (Dialogs: Globalmapper, CalDiet)

2016 New Function: Optional Selection of 32/64 Bit Database (Dialog: GaussWM)

2016 New Function: Optional Selection of 32/64 Bit Database (Dialogs: CalTable, CalKN, Multigroup)

2016 New Function: Optional Selection of DataSheet in Excel-Database (Dialog: Database)

2016 Expansion of Maximal Database Size from 35 to 60 k ^{14}C -ages

2016 Change from 32 to 64 Bit (Intel Visual Fortran Compiler, IMSL-6.0 Libraries; QT-DateTime, Excel).

2016 Assembly of Edition 2016.8

2016 Zooarchaeological Data integrated: Bos LSI Early Neolithic Fertile Crescent (Arbuckle & 2016a)

2016 Zooarchaeological Graph (*.mcf) added to installation: Sus, Bos, Ovis, Capra

2016 Zooarchaeological Data integrated: Capra LSI-Size Neolithic Turkey (Arbuckle & 2016)

2016 Zooarchaeological Data integrated: Ovis LSI-Size Neolithic Turkey (Arbuckle & 2016)

2016 Zooarchaeological Data integrated: Bos LSI-Size Neolithic Turkey (Arbuckle & 2016)

2016 Zooarchaeological Data integrated: Sus LSI-Size Neolithic Turkey (Arbuckle & 2016)

2016 Assembly of Edition 2016.7

2016 Multiclimature Graph: Sapropel S1 (collection of different cores) added to installation

2016 Multiclimature Graph: Near Eastern Moist Period added to installation

2016 New Function in Multiclimature Dialog: Variable Titel size 1-100 (rel), default=20

2016 Climate Data integrated: Aammiq Pollen Based Holocene January Temperature

2016 Climate Data integrated: Al Jourd Pollen Based Holocene January Temperature

2016 Climate Data integrated: Lebanon Aammiq Pollen Based Holocene Summer Precipitation

2016 Climate Data integrated: Lebanon Aammiq Pollen Based Holocene Winter Precipitation

2016 Climate Data integrated: Lebanon Al Jourd Pollen Based Holocene Summer Precipitation

2016 Climate Data integrated: Lebanon Al Jourd Pollen Based Holocene Winter Precipitation

2016 Update to Winteracter 10.10d

2016 New Function in Multiclimature Dialog: Variable Text size 1-100 (rel), default=20

2016 Archaeobotanical Data integrated: Cereal Domestication Trends (Maeda & 2016)

2016 Archaeobotanical Graphs (*.mcf) added to installation: Barley, Emmer, Einkorn-1, Einkorn-2

2016 Archaeobotanical Data integrated: EN Barley, Emmer, Einkorn, Wheat (Asouti & Fuller 2013)

2016 Assembly of Edition 2016.6

2016 New Function in Multiclimature Dialog: Optional Time-Spans with/without Site Names

2016 New Function in Multiclimature Dialog: Storage of Time-Spans and Site Names in climate files

2016 New Function in Multiclimature Dialog: Optional 68%-Error Bars for Symbols (Checkbox)

2016 New Function in Multiclimature Dialog: Storage of STD in climate files

2016 New Function in Multiclimature Dialog: Optional Symbol AND Line (Checkbox)

2016 New Function in Multiclimature Dialog: Symbol and Colour Selector (Graph type)

2016 New Function in Multiclimature Dialog: Variable dot size 1-100 (rel), default =1

2016 Holocene Archaeological Database Supplement: 32429 dates; 91.3% georef; 6515 sites

2016 Climate Data integrated: Core SL143 Sahara Dust 0-100 ka
2016 Climate Data integrated: Lake Tanganyika Leaf Wax $\delta D_{\text{Leaf Wax}}$ 0-60 ka
2016 Climate Data integrated: Lake Van PC1 0-100 ka
2016 Climate Data integrated: Core P178-15P Aden, African Humid Period

2016 Assembly of Edition 2016.5

2016 Climate Data integrated: Moomi Cave M1-5 $\delta^{18}\text{O}$, Socotra Island, Indian Summer Monsoon
2016 Climate Data integrated: Moomi Cave M1-5 $\delta^{13}\text{C}$, Socotra Island, Indian Summer Monsoon
2016 Climate Data integrated: Core SO188-342KL, Bengali Basin, Indian Summer Monsoon, 0-18 ka
2016 Holocene Archaeological Database Supplement: 32395 dates; 91.2% georef; 6514 sites
2016 Climate Data integrated: Lake Paru Co BSi, Tibet, Indian Summer Monsoon
2016 Climate Data integrated: Lake Paru Co $\delta D_{\text{Leaf Wax}}$, Tibet, Indian Summer Monsoon
2016 Error in climate record Help corrected: Qingtian Cave (wrong filename)
2016 Database integration CalPal & Radon & Eurovol: 32240 dates (Courtesy Clemens Schmid)
2016 Amendments to Multigroup and Multiclimat: identical graph size simplifies AI-overlay
2016 Bug Fix in Multiclimat Dialog: Window Initialization corrected
2016 Climate Data integrated: Jeita Cave $\delta^{13}\text{C}$ (Numeric Data Courtesy Hai Cheng)
2016 Climate Data integrated: Jeita Cave $\delta^{18}\text{O}$ (Numeric Data Courtesy Hai Cheng)
2016 New Documentation Element: Multiclimat Composer
2016 New Function in Multiclimat Dialog: Tick Selector
2016 New Functions in Multiclimat Dialog: Fine-Tuning of Vertical Position of Record & Record Title
2016 Update to Winteracter 10.10c
2016 New functions in Multiclimat Dialog: Store and Retrieve top and bottom timescales
2016 Resize of Multiclimat Dialog to fit smaller (1024* 768 pixel) notebook screens in CalPal courses
2016 New Function in Multiclimat Dialog: Help text included

2016 Assembly of Edition 2016.4

2016 New Functions in Multiclimat Dialog: 24-Bit Colour Selection, Positional Second Time Scale
2016 New Functions in Multiclimat Dialog: Invert Scales & Graph Types (histogram, line, dots)
2016 New Dialog: Multiclimat Composer (finished *prototype* but awaiting increase in functionality)
2016 Amendments to CalTable Dialog: Show-Hide Normalisation Checkbox to allow p=Rectangular
2016 Amendments to ^{14}C -Database Europe.xls: N=1000 Doublets removed
2016 Climate Data integrated: Tenaghi Philippon δ -Deuterium

2016 Assembly of Edition 2016.3

2016 South America Database (N=5479 dates) of Goldberg, Mychajliw and Hadly (2016) integrated
2016 Amendments to GaussWMDialog: Output adjusted to show Optimum results (also: Average)
2016 Amendments to GaussWM Dialog: Backup Checkbox is provided with colour (grey/green)
2016 New Function in GaussWM Dialog: Checkbox for backup copy of results for long runs
2016 Corrections to GaussWM Dialog: Final numeric output of Optimal Run (Screen and Table)
2016 Amendments to Climate ODBC Import Dialog: User is informed to call xls-spreadsheet "sheet1"
2016 Bug Fix in Climate ODBC Import Dialog: Crash avoided for incorrect xls-spreadsheet selection
2016 New Function in Reservoir Explorer: Optional Barcode Projection of Data Selected for Shift
2016 Amendments to GaussWM Dialog: The Non-Central Checkbox is re-set when file is changed
2016 Amendments to GaussWM Dialog: The Random Order Checkbox is re-set when file is changed
2016 Amendments to GaussWM Dialog: The Double STD Checkbox is re-set when file is changed
2016 Update to Winteracter 10.10b
2016 Bug Fix in GaussWM: Graphic Box Dating Precision (Blue Curve) now corresponds to true values

2016 Assembly of Edition 2016.2

2016 Amendments to CalTable: When not needed, Climate and Normalisation Tools are hidden
2016 Amendments to Reservoir Explorer: OK & CANCEL Buttons with question icon
2016 Climate Data integrated: ODP-976 25 ka SST wMed
2016 Systematic New Design of Climate Records: Free selection of climate graph variables
2016 Systematic New Design of Climate Records: 'Nice Trackbar Positioning' of climate records
2016 Systematic New Design of Climate Records: 'Nice Numbers' on climate graph scales
2016 Amendments to Database Dialog: Identification and naming of data errors during xls-import
2016 New Function in Database Dialog: Select All Dates Button
2016 New Function in CalDiet: Timer added
2016 New Function in Reservoir Explorer: Edit Select File Log
2016 BugFix in Select File Delete: Multiple file deletion is now correctly supported
2016 Climate Data integrated: SL-31 Aegean, Sapropel S1

2016 Climate Data integrated: LC-21 Cyprus, Sapropel S1
 2016 Climate Data integrated: LC-31 Aegean, Sapropel S1
 2016 Climate Data integrated: SL-112 Levantine Coast, Sapropel S1
 2016 Climate Data integrated: SL-148 Aegean Sea, Sapropel S1
 2016 Climate Data integrated: SL-123 Aegean, Sapropel S1
 2016 Climate Data integrated: MD04-2722 Levantine Deep Water, Sapropel S1
 2016 Unification of Store/Delete Select File routines with access from different dialogs
 2016 Update to Winteracter 10.10a
 2016 Max number of select files increased from 99 to 200 and defined as variable parameter
 2016 New Function on CalKN: Storage of 14C-Data as Select dataset (ASCII with cal crossbars)
 2016 New Function on CalTable: Storage of 14C-Data as Select dataset (ASCII with cal crossbars)
 2016 Bug Fix in CalTable: Inconsistent calBC/AD-CalBP-cal2k scales corrected
 2016 Bug Fix in Reservoir Explorer: Missing Time-Scale Numbers on Export Graph
 2016 Bug Fix in Reservoir Explorer: Missing Time-Scale Numbers on Export Graph
2016 Assembly of Edition 2016.1
 2016 Amendments to GaussWM : Automated documentation of applied GaussWM method
 2016 Amendments to GaussWM : Storage of non-shuffle-derived errors for Reservoir Explorer
 2016 Caution Report in Excel-Export: ID-Nr in Column 1 of xls-Database must be sequential (1,2,3...)
 2016 Amendments to GaussWM: Storage of shuffle-derived marginal errors for Reservoir Explorer
 2016 Amendments to GaussWM: Scaling of Randomized Probability Graph optimized
 2016 Amendments to GaussWM:Randomized Resultsshowed identical in Table (EDIT) and Grid
 2016 Variable (but restricted) Time Window in CalCurve Composer replaced by pulldown Menu
 2016 Variable (but restricted) Time Window in Reservoir Explorer replaced by pulldown Menu
 2016 New Function in root-menu [*File*]: Routine to test whether selected xls-file has CalPal-Format
 2016 Store New CalCurve and Remove CalCurve functionality added to CalCurveComposer
 2016 Winteracter 10.10 PlotConv Help File added to CalPal-Installation
 2016 Update to QTDateTime Library Version 1.02
 2016 New Function in Database: Export of Database ¹⁴C-Grid via Printer Manager (incl.pdf)
 2016 New Function in GaussWM: Export of GaussWM ¹⁴C-Grid via Printer Manager (incl.pdf)
 2016 New Function in CalTable: Export of CalTable ¹⁴C-Grid via Printer Manager (incl. pdf)
 2016 New Function in all Dialogs: Export of Graphs via Printer Manager
 2016 Unification of ChildWindow, Dialog, Menu, and Toolbar *Fortran* Names
 2016 Unification of View function Window: [*AlwaysOnTop*]
 2016 Unification of Editor function Window: [*AlwaysOnTop*]
 2016 Unification of ChildWindow Management: [*Minimizing only via Main Menu*]
 2016 Unification of ChildWindow Management: systematic Grandparent-Parent-Child maintenance
 2016 CalPal-Format Climate Record Database [Climate.log] contains 242 climate records
 2016 CalPal-Format Radiocarbon Database [Europe.xls] contains 22800 Dates, 85.8 % georeferenced

2015 Amendments to Multimethod: Corrections in alignment and multiple writing of numeric output
 2015 Amendments to Multigroup: Corrections in alignment and multiple writing of numeric output
 2015 Unification and amendments of printer-dialogs: additional functionality in print options
 2015 Amendments to xls-write: Additional Functionality with Timer based on QTDateTime
 2015 Amendments to CalKN: Additional Functionality with Timer based on QTDateTime
 2015 Amendments to GaussWM: Additional Functionality with Timer based on QTDateTime
 2015 Amendments to CalTable: Additional Functionality with Timer based on QTDateTime
 2015 Integration of QTDateTime Library Version 1.01
 2015 Update to Winteracter 10.10
 2015 Amendments to CalTable-Dialog: Corrections in updating of grid labels and data numbers
 2015 Amendments to CalKN-Dialog: Database Import corrected (previously: wrong format).
 2015 Amendments to Excel-Viewer: Additional functionality along with some minor corrections.
 2015 Amendments to Excel-Viewer: System crash under certain (large file) conditions repaired.
 2015 Climate Data integrated: Alepotrypa Cave Peloponnese ¹³C (4200 yr calBP event)
 2015 Climate Data integrated: Alepotrypa Cave Peloponnese ¹⁸O (4200 yr calBP event)
 2015 Climate Data integrated: MD99-2343-UP10 (showing W-med RCC-sequence)
 2015 Climate Data integrated: Lake Prespa TIC (Glacial Period, showing Heinrich events)
 2015 Climate Data integrated: Gueldaman Cave Algeria ¹³C (4200 yr calBP event)
 2015 Climate Data integrated: Gueldaman Cave Algeria ¹⁸O (4200 yr calBP event)

2015 Amendments to GAUSSWM dialog. Added Excel-export of numeric errors
2015 Amendments to GAUSSWM dialog. Functional Tests & Optimization of Monte Carlo Analysis
2015 Amendments to GAUSSWM dialog. Summed Random Shuffle (Prob & Precision & Factor F)
2015 Amendments to GAUSSWM dialog. New GaussWM study feature: Random Phase Shuffle
2015 Amendments to GAUSSWM dialog. New GaussWM study example: Varna
2015 Amendments to GAUSSWM. Optional Non-Central Chi-Squared (Default: Chi-Squared)
2015 Climate Data integrated: Soreq Cave ^{13}C (2-13100 calBP), courtesy M Bar-Matthews
2015 Climate Data integrated: Soreq Cave ^{18}O (2-13100 calBP), courtesy M Bar-Matthews
2015 Amendments to GAUSSWM dialog. Updated INVERT Spreadsheet function
2015 Amendments to GAUSSWM dialog. Enhanced Age Model Construction (DEPTH column)
2015 Amendments to GAUSSWM dialog. New Dialog for Age Model Construction (PHASE column)
2015 Amendments to GAUSSWM. xls-Import onto PHASE-Column in spreadsheet
2015 Amendments to GAUSSWM. Introduction of PHASE-Column in spreadsheet
2015 New GAUSSWM Function. Random shuffling on spreadsheet PHASE-column (e.g Varna Dates)
2015 Bug Fix in GaussWM. Double STD checkbox corrected
2015 Amendments to GaussWM. Update of labels for number of ^{14}C -data in Grid
2015 Win 10 installed. CalPal Compilation tested
2015 Climate Data integrated: Lake Neor, Iran, Eolian Dust
2015 Climate Data integrated: Qingtian Cave ^{18}O Early Holocene
2015 Amendment in CalKN: Export Graph call corrected to work on slow PCs
2015 Bug Fix in CalTable: Correction of multiple overwrite of DATE LIST (smudged numbers)
2015 Amendments to CalTable Graph: use of Helvetica stabilizes number-positioning on ^{14}C -scale
2015 Amendments to CalTable: Introduction of field for numeric display of estimated run-time [min]
2015 Update to Winteracter 10f
2015 Amendments to CalTable: DATABASE Button added, in support of database xls-import
2015 Amendments to GaussWM: Delta and Sum Values updated immediately on spreadsheet-entry
2015 Bug-Fix in GaussWM: xls-Mode (Files->Save) previously ignored changes in spreadsheet
2015 ^{14}C -dates for further Egyptian Dynasties added to Europe.xls (data from Oxford Project).
2015 Egyptian 1st Dynasty added as further example for GAUSSWM-dialog xls-Import
2015 Climate Import Dialog Screen Size reduced to fit Notebook (1280x800 pixel)
2015 Climate Data integrated: Jeita Cave Diameter Holocene
2015 Climate Data integrated: Soreq Cave $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Soreq Cave $\delta^{13}\text{C}$ Holocene
2015 Climate Data integrated: Golf of Oman CaCO_3 (Eolian Dust)
2015 Climate Data integrated: Red Sea Aridity Index Holocene
2015 Climate Data integrated: Red Sea Clay Content Holocene
2015 Climate Data integrated: Corchia Cave (Italy) $\delta^{13}\text{C}$ Holocene
2015 Climate Data integrated: Corchia Cave (Italy) $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Hoti Cave H5 H12 Combined $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: SL148 EM3 North Aegean
2015 Climate Data integrated: Lake Miribad $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Lake Zeribar $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Lake Van $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Lake Eski Acigol $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Lake Golhisar $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Lake Ioannina $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: SE Levantine Sea site SL112 EM3
2015 Climate Data integrated: Jeita Cave $\delta^{18}\text{O}$ Holocene
2015 Climate Data integrated: Jeita Cave $\delta^{13}\text{C}$ Holocene
2015 Standardization of RUN-Dialogs: exit via CANCEL (Yes/No) and OK (Yes/No/Cancel) Buttons
2015 Amendments in GaussWM and CalTable Grid: ^{14}C -age and ^{14}C -STD must be ≥ 1
2015 Amendments in GaussWM Dialog to support File Information Management
2015 Bug Fix in GaussWM Dialog: Blue colour marking of grid rows for Insert/Delete Line stabilized
2015 Amendment to GaussWM Dialog: Excel-Import and ASCII-Export
2015 Amendment to GaussWM Dialog: Excel-Import-Export File-Selector options: Save & Save-As
2015 Amendment to GaussWM Dialog: Excel-Import-Export of GaussWM Format Datasets
2015 Amendment to CalTable Dialog: Excel-Import-Export File-Selector options: Save & Save-As
2015 Amendment to CalTable Dialog: Excel-Import-Export of Standard Database Format Datasets

2015 Bug Fix in GaussWM: Select File Cancel (with no file defined) previously caused crash.
2015 Bug Fix in GaussWM: Grid Results stabilized (previously reset by certain mouse-clicks).
2015 Normalization tested for small (< 1BP) STD and dense Dirac sequences (1 sample/yr, 40000 yrs)
2015 Expansion of variables completed for all dialogs. New CalGroup limit: 10 * 40000 dates.
2015 Expansion of variables to allow calibration of > 1000 dates. New CalTable limit: 40000 dates.
2015 Amendments to CalTable Dialog: Optional BarCode representation
2015 Amendments to CalTable Dialog : New Subdialog (MAKE SET) to produce uniform cal-scale data

2014 Amendments to Normalization Routine: Integration limits tested for large standard deviations
2014 Amendments to Multigroup Database Dialog: numeric field for number of filtered data added
2014 Bug fix in Dialog Reservoir Explorer: double click previously caused unrequested program exit
2014 Update to Winteracter 10.0d
2014 Major Reworking of Climate Record Import Dialog (XLS- and CSV-Import)
2014 Amendments in Climate Record Import Dialog: New Function : CSV-Format Import from Scan
2014 Climate Data integrated: Lake Iznik Ca/Ti
2014 'Climate Data' Files added: Two Scanned Probability distributions from Bueno et al 2013 (Fig.2)
2014 Brazil Archaeological ¹⁴C-Database Bueno et al 2013 added
2014 Amendments to Database Spreadsheet: Tagged Data are now immediately stored by Select Tag
2014 Climate Data integrated: NGRIP Temperature Reconstruction
2014 Amendments in Climate Record Import Dialog: ASCII-Format Import from automated scan
2014 Climate Data integrated: Lake Trifoglietti Precipitation Reconstruction, Italy
2014 Climate Data integrated: Lake Pergusa Arboreal Pollen, Italy
2014 Climate Data integrated: Preola Lake Levels, Italy
2014 Climate Data integrated: Lake Haukadalsvatn, Iceland, 0-10 ka calBP
2014 Update to Winteracter 10.0c
2014 Climate Data integrated: Lake Qinghai [%-redness], proxy for precipitation.
2014 Installation: to facilitate installation on Chinese Win-OS, file-name Körtik is changed to Kortik
2014 GaussWM Dialog: Linear Extension Button 2 yrs added
2014 Climate Data integrated: Yuexi Peat, $\delta^{13}\text{C}$, Indian Summer Monsoon
2014 Climate Data integrated: Lake Accesa Italy, 4.2 ka calBP event
2014 Amendments to CalTable Dialog: NoDataList graphic output corrected
2014 Amendments to Climate Dialog: Dots made functional; Screen Measurements; Values Coloured
2014 Unification of Editors (all Dialogs), View-Only options taken out: all files can be edited
2014 Amendments to Climate Dialog: Mouse Screen-Scaling installed, optional cursor-switch & grids
2014 Update to Winteracter 10.0. Export of jpeg-graphs (courtesy: <http://www.openjpeg.org/>)
2014 Amendments in Multigroup Database xls-Import: filter texts are now correctly reset.
2014 Climate Record updated: Dust Storms in China (Hui et al., 2013) Data Courtesy Deng Hui
2014 Climate Data integrated: Cariaco Titanium, ITCZ.
2014 Climate Data integrated: Heshang Cave $\delta^{18}\text{O}$, 8.2 ka calBP event.
2014 xls-Export Dialog: Currently selected calibration curve added to information field
2014 GISP2 Glaciochemical Element climate record files: Central Depth and Age Values referenced
2014 New Dialog: Construction of Stacked Climate Records
2014 Amendments to Climate Dialog: Remove-File from Climate Log made functional
2014 Amendments to Climate Dialog: EDIT-function: immediate update of changes to climate file
2014 Climate Data integrated: Lake Qinghai Holocene Dust Flux
2014 Climate Data integrated: N Spain Holocene Stalagmite $\delta^{13}\text{C}$
2014 Climate Data integrated: Lake Prespa Co1215 TOC
2014 Amendments in Climate Record Smooth Dialog: Y-Scaling corrected
2014 Climate Data integrated: Lake Stymphalia Rb/Sr
2014 Climate Data integrated: Mt Sedom Tamarix $\delta^{13}\text{C}$
2014 Climate Data integrated: Lianhua Cave $\delta^{18}\text{O}$ Central China
2014 Climate Data integrated: Sanbao Cave $\delta^{18}\text{O}$ Central China
2014 Age-Multipliers (1,10,100,1000) added to Climate Record xls-Import Dialog
2014 Invert Table function added to GaussWM (optional depth-inversion)

2013 Climate Data integrated: Lake Iznik XRF, Data: courtesy Finn Viehberg
2013 Climate Data integrated: Lake Petit [Detrital %], Data: courtesy Elodie Brisset
2013 New INTCAL13 Rawdata Sets 1-17,20-22,24-26

2013 New Floating Dialog in CalCurve Composer to allow choice of select.log
 2013 New Floating Dialog in Reservoir Explorer to allow choice of select.log
 2013 Amendments to GAUSSWMM Dialog to simplify use
 2013 New Option in GAUSSWMM: optional checkbox to double STD of input data
 2013 Bug fix: in GAUSSWMM very large STD read/write format error removed
 2013 Calcurve Comparison pdf updated to include INTCAL13
 2013 Bug fix: in ODBC xls-Export Dialog, for large xls-databases, CANCEL leads to program crash
 2013 Climate Record added: Dust Storms in China (Hui et al., 2013)
 2013 Minor Amendments in ODBC xls-Import Dialog (Initializing Dialog, Paths, EDIT)
 2013 Multigroup Tables extended to include calBP-scaled data
 2013 Change of default calbar-file for projection onto INTCAL09-curve.
 2013 INTCAL13 Calibration Curve integrated.
 2013 INTCAL13 Calibration Data integrated.
 2013 Bug Fix: incomplete cal-data error analysis. All dialogs now produce identical cal-ages.
 2013 Version Sep: 14C-Database "Europe-xls" extended (N=21464 entries, 82 % georeferenced)
 2013 Database Select: Incomplete Filter Bug removed
 2013 Version July: 14C-Database "Europe-xls" extended (N=20.850 entries, 77 % georeferenced)
 2013 Version May: 14C-Database "Europe-xls" extended (N=20.020 entries, 75 % georeferenced)
 2013 New CalCurve Construction Data Set: Cariaco 2012 (Bronk Ramsey & 2012)
 2013 Identical Read/Write Documentation in Multigroup, CalKN and CalDiet
 2013 Documentation of Filter Sequence (max 4 Filter Steps) in Multigroup Spreadsheet
 2013 New Red Light Warning Field in CalCurve Composer for undefined spline envelope.
 2013 Removal of 'NaN' bug in CalCurve Composer (IMSL-CSVAL undefined spline envelope)
 2013 New CalCurve Construction Data Set: IODP 310 Core (Durand & 2013)
 2013 Climate Data integrated: Mawmluh Cave India $\delta^{18}\text{O}$
 2013 Climate Data integrated: Pacupahuain $\delta^{18}\text{O}$
 2013 Climate Data integrated: Complete Set of Depth-scaled GISP2 glaciochemical records
 2013 Temporary introduction of password *not4sfb806* for unzip routine
 2013 Simplified Dialog for climate record xls-import
 2013 Archaeological ^{14}C -database "Europe-xls" extended (N=18.800 entries)
 2013 New Dialog for ^{14}C -database xls-export of calibrated ^{14}C -ages by Winteracter 9.0 ODBC-routines
 2013 New optional selection of 32/64 bit Win-OS (Winteracter 9.0), but only 32 bit presently used.
2013 Replacement of all F90SQL xls-import routines with Winteracter 9.0 ODBC-xls-routines
2013 Update to mathematical libraries IMSL 6.0
2013 Fortran Compiler Change from Lahey F90 to Intel Visual Fortran Composer XE

2012 Hulu H82 Climate and U/Th-14C Data integrated
 2012 Climate Record Age-Depth Timescale Transfer Dialog
 2012 Climate Record Age-Age Timescale Synchronisation Dialog
 2012 Climate Data Integrated GISP2 Glaciochemical Ions (incl ice-core depth)
 2012 Climate Record Graphic Mouse Digitisation Age-Depth Dialog
 2012 Climate Record Graphic Mouse Digitisation Age-Age Dialog
 2012 Spreadsheet 14C-Database dialog debugged (alphanumeric sorting)
 2012 Spreadsheet 14C-Database dialog provided with multipage Postscript Export

2011 Climate Record Smooth Dialog
 2011 Worksheet Database Management Dialog
 2011 Excel Export (allows xls-export including cal-ages)
 2011 Optimized Gaussian Monte Carlo Wiggle Matching Method
 2011 Normalisation Functionality (Classical Bayesian vs Quantumtheoretical Bayesian)
 2011 Climate Record Function Derivatives Dialog

2010 Climate Data integrated:SL21 Aegean
 2010 Climate Data integrated:Tenaghi Philippon 8.2 ka Tree/NonTree Pollen
 2010 Climate Data integrated:Sufular Cave $\delta^{13}\text{C}$
 2010 Climate Data integrated:Sufular Cave $\delta^{18}\text{O}$
 2010 Climate Data integrated:Global Sea Levels
 2010 Climate Data integrated:Black Sea Salinity

2010 Climate Data integrated:Black Sea Ti/Ca
2010 Climate Data integrated:Black Sea $^{87}\text{Sr}/^{86}\text{Sr}$
2010 Climate Data integrated: Caverna Botuvera Brazil Stalagmite BTV4C
2010 INTCAL09 Calibration Data integrated

2009 Climate Data integrated:CalPal Hulu $\Delta^{14}\text{C}$
2009 Climate Data integrated:Holocene Dead Sea Level
2009 Climate Data integrated:RedSea GeoB5844-2 GRuber
2009 Climate Data integrated:RedSea GeoB5844.2 Salinity
2009 Climate Data integrated:Q5 Cave Oman $\delta^{18}\text{O}$
2009 Climate Data integrated:Black Sea
2009 Climate Data integrated:Katerloch Austria $\delta^{13}\text{C}$
2009 Climate Data integrated:Katerloch Austria $\delta^{18}\text{O}$
2009 Climate Data integrated:GISP2 Chloride Ions

2008 Climate Data integrated:GISP2-GLOPIS
2008 Climate Data integrated:HULU-GLOPIS
2008 Climate Data integrated:Bond Events Stack

2007 Climate Data Import and Rescale Dialog
2007 ^{14}C -Age Calibration Import and Rescale Dialog
2007 Storage and Retrieval of Calibrated ^{14}C -Distributions as Proxies
2007 Climate Correlation Dialog
2007 Integration of INTCAL04-Marine Calibration Curve
2007 Seventh Glacial Calibration Curve (CalPal 2007 Hulu)
2007 Mesolithic Early Neolithic ^{14}C Database Northwest Europe
2007 Climate Data integrated: Aegean Core LC21 and GISP2 K^+ and Na^+ Ions

2006 Worksheet Quick ^{14}C -Input
2006 Optional Switch between calBP and calBC/AD Timescales

2005 Visual Tool for ^{14}C -Database Management (MultigroupComposer)
2005 Visual Tool for Mixed ^{14}C and TL-U/Th-Database Management ethodComposer)
2005 Visual Tool for Variable Cal-Age and ^{14}C -Age Shift (Reservoir-Explorer)
2005 Integration of Globalmapper (SRTM High-Resolution Radar Satellite Cartography)
2005 INTCAL04 ^{14}C -Age Calibration Integrated
2005 Sixth Glacial Calibration Curve (CalPal 2005 SFCP)
2005 Fairbanks Sep 05 Standalone ^{14}C -Age Calibration integrated
2005 Visual Tool for ^{14}C -Database Management (MultigroupComposer)

2004 Fourth Glacial Calibration Curve (CalPal 2004 Jan)
2004 QuickCal PC-Standalone ^{14}C -Age Calibration (Perl)
2004 Visual Tool for Climate Proxy Timescale Transfer (TimeScaleComposer)
2004 Fifth Glacial Calibration Curve (CalPal 2004_SFCP)

2003 Lahey Fortran Compiler LF5.7 & Winteracter 5.1
2003 Visual Tool for Calibration Curve Construction (CalCurveComposer)
2003 Third Glacial Calibration Curve (CalPal 2003)
2003 Near Eastern & Anatolian Early Neolithic ^{14}C -Cartography
2003 World-Wide-Web On-Line ^{14}C -Age Calibration (Perl)

2002 IMSL Mathematical Libraries
2002 European Middle and Early Upper Palaeolithic ^{14}C -Cartography

2001 Second Glacial Calibration Curve (CalPal 2001)
2001 Integration of PanMap (High-Resolution Cartography)

2000 Multiple 2-D Dispersion Archaeological Group Calibration

1999 Fortran-ODBC-Connectivity with F90SQL

1998 First Glacial Calibration Curve (CalPal 1998)

1998 Graphic Climate Context Calibration (Climate Composer)

1997 Lahey Fortran Compiler LF5.0 & Winteracter 3.0 GUI

1995 Compaq Visual Fortran CVF5.0 Compiler (HPGL)

1993 KÖLN UNIVERSITY (++WIN 95/98/2000/XP ++486/586)

1991 TÜBINGEN UNIVERSITY (PC-DOS 286/386)

1991 MS-DOS Fortran 77 Calibration Program Version

1991 Calibration Graphs on Table Plotter and Printer (HPGL).

1985 2D-Dispersion Single Date and Archaeological Group Calibration

1985 Dendro and Archaeological Wiggle Matching

1985 Graphic Output on CalComp Plotter (DINA0,HPGL).

1984 FRANKFURT UNIVERSITY (UNIVAC-1100) Unix-Fortran 77