HISTORY OF CALPAL 1984-2016
Most Recent Update: 12th March 2016 (Edition 2016.2)

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 Bug Fix 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 Results shown 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 **r**oot-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 ^{13}C (4200 yr calBP event)
2015 Climate Data integrated: Alepotrypa Cave Peloponnese ^{18}O (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 ^{13}C (4200 yr calBP event)
2015 Climate Data integrated: Gueldaman Cave Algeria ^{18}O (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 18O 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 spread-sheet
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 δ^{18}O Holocene
2015 Climate Data integrated: Soreq Cave δ^{13}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) δ^{13}C Holocene
2015 Climate Data integrated: Corchia Cave (Italy) δ^{18}O Holocene
2015 Climate Data integrated: Hoti Cave H5 H12 Combined δ^{18}O Holocene
2015 Climate Data integrated: SL148 EM3 North Aegean
2015 Climate Data integrated: Lake Miribad δ^{18}O Holocene
2015 Climate Data integrated: Lake Zeribar δ^{18}O Holocene
2015 Climate Data integrated: Lake Van δ^{18}O Holocene
2015 Climate Data integrated: Lake Eski Acigol δ^{18}O Holocene
2015 Climate Data integrated: Lake Golhisar δ^{18}O Holocene
2015 Climate Data integrated: Lake Ioannina δ^{18}O Holocene
2015 Climate Data integrated: SE Levantine Sea site SL112 EM3
2015 Climate Data integrated: Jeita Cave δ^{18}O Holocene
2015 Climate Data integrated: Jeita Cave δ^{13}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: 14C-age and 14C-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, d13C, 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 18O, 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 13C
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 13C
2014 Climate Data integrated: Lianhua Cave 18O Central China
2014 Climate Data integrated: Sanbao Cave 18O 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 GAUSSWM Dialog to simplify use
2013 New Option in GAUSSWM: optional checkbox to double STD of input data
2013 Bug fix: in GAUSSWM 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 d18O
2013 Climate Data integrated: Pacupahuain 18O
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 13C
2010 Climate Data integrated:Sufular Cave 18O
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 87Sr/86Sr
2010 Climate Data integrated: Caverna Botuvera Brazil Stalagmite BTV4C
2010 INTCAL09 Calibration Data integrated

2009 Climate Data integrated:CalPal Hulu D14C
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 d18O
2009 Climate Data integrated:Black Sea
2009 Climate Data integrated:Katerloch Austria 13C
2009 Climate Data integrated:Katerloch Austria 18O

2009 Climate Data integrated:GISP2 Chroride 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 14C-Age Calibration Import and Rescale Dialog
2007 Storage and Retrieval of Calibrated 14C-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 14C Database Northwest Europe
2007 Climate Data integrated: Aegean Core LC21 and GISP2 K+ and Na+ Ions

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

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

2004 Fourth Glacial Calibration Curve (CalPal 2004 Jan)
2004 QuickCal PC-Standalone 14C-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 14C-Cartography
2003 World-Wide-Web On-Line 14C-Age Calibration (Perl)

2002 IMSL Mathematical Libraries
2002 European Middle and Early Upper Palaeolithic 14C-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