



History of the program **SEVENPAR**

Changes and Supplements

Calculation of Helmert and Molodensky Parameter Sets

Detailed Information about the program SEVENPAR: https://www.killetsoft.de/p_svpa_e.htm

Translation of the history to other languages: <https://translate.google.com/>

Program release **SEVENPAR 14.xx**

Changes and Supplements during the version **SEVENPAR 14.xx**:

- 14.09: Tooltips for the round help buttons added.
- 14.08: Round help button for the description of the variants of Helmert sets added.
- 14.07: The cluster widths have been reduced for a better overview.
- 14.07: The output in clusters has been improved in the quality analysis.
- 14.06: The 20 points with the highest quality are displayed in the quality analysis.
- 14.05: Column for help buttons next to the function areas implemented.
- 14.04: New help button to call the help chapter with the description of the point file formats.
- 14.04: Help chapter "Format of identical points" considerably supplemented.
- 14.03: Ellipsoid parameters removed from the external residuals file.
- 14.03: The term "Residuals" has been inserted in the external residuals file.
- 14.02: Incorrect designation in the external files corrected.
- 14.01: Attention: When updating a version 13.xx or 14.xx with a version newer than 14.00, the program must be unlocked again!
- 14.01: Verification of unlocking for network mode has been made secure.
- 14.00: New main version number.

Program release **SEVENPAR 13.xx**

Changes and Supplements during the version **SEVENPAR 13.xx**:

- 13.04: Duplicate entry in the German language help file removed.
- 13.03: New menu item "Printable order form" in the "Offline" menu.
- 13.02: New menus "WWW" and "Offline" in the menu bar.
- 13.01: Log file name changed to avoid concurrent use by other programs.
- 13.00: New main version number.

Program release **SEVENPAR 12.xx**

Changes and Supplements during the version **SEVENPAR 12.xx**:

- 12.08: Certification of the program and the installer renewed.
- 12.07: Entering the unlocking parameters improved.
- 12.06: Empty message when removing outliers from more than 2^{16} points removed.
- 12.05: Program abort when removing a large number of outliers fixed.
- 12.04: New help chapter "Variants of Parameter Sets".
- 12.03: Incorrect quality calculation for "Position Vector Transformation" and "ISO 19111" fixed.
- 12.02: Very rare error messages during coordinate transformations fixed.
- 12.02: Slightly higher execution speed due to improved memory model.
- 12.01: During installation warnings are given about risks from illegal cracks.
- 12.00: New main version number.

Program release **SEVENPAR 11.xx**

Changes and Supplements during the version **SEVENPAR 11.xx**:

- 11.04: Automatic language detection at the first program call adjusted.
- 11.03: Increased stability and speed with a new development system.
- 11.03: Delivered with new Dynamic Link Libraries (DLLs).
- 11.02: Outliers can be excluded from the calculation.

11.01: New Language interface file for Bosnian, Croatian and Serbian added.
11.00: New main version number.

Program release SEVENPAR 10.xx

Changes and Supplements during the version SEVENPAR 10.xx:

10.57: Chapter "Modelling of Parameter Sets" and "Identical Points" of the help file supplemented.
10.56: UTM coordinates of the southern hemisphere are supported.
10.56: Separators for separating alphanumeric point numbers are considered.
10.55: Error handling improved.
10.54: Portuguese language file for version 10.50 completed.
10.54: Spanish language file for the version 10.50 completed.
10.53: French language file for the version 10.50 completed.
10.52: Slovenian language file for the version 10.50 completed.
10.51: Format of the quality analysis improved.
10.50: The program got a new user interface.
10.50: Instead of 30.000, now one million identical points can be processed.
10.50: Identical points are now only read from files.
10.50: Helmert parameter sets and additional calculations are written to a result file.
10.50: Hints and error messages are written into the log file.
10.50: The log file contains information about the storage directory and the time of creation.
10.50: Original, geographic and cartesian coordinates are written to external files,
10.50: Ellipsoids can additionally be written to the external files.
10.50: The path for the external files can be specified.
10.50: Residual gaps are written to an external file.
10.50: The quality of the Helmert-Parameter-Set is checked and documented.
10.50: In the test version the limitation to 25 identical points is abolished.
10.50: In the test version only provided test files can be used.
10.50: The electronic manual has been revised and completed.
10.50: New chapter in the manual: "Modeling Parameter-Set".
10.50: New chapter in the manual: "Identical points".
10.50: New chapter in the manual: "Ellipsoidal height".
10.50: Added chapter "Examples" with two detailed and graphically illustrated examples.
10.50: Headline added to print output.
10.50: Badly readable print output with more intensive black changed
10.04: Abort conditions for the iterative computation of the 7 Helmert parameters improved.
10.03: Solved error when entering the ellipsoid parameters of the target system.
10.02: The blinking frequency of the icon during waiting times has been adjusted.
10.02: The half-axes of the ellipsoids may be entered with a comma as decimal separator.
10.01: Several info files replaced by links in README.PDF and LIESMICH.PDF.
10.01: English language help file and README.PDF reworked.
10.01: German language help file and LIESMICH.PDF reworked.
10.00: New main version number.

Program release SEVENPAR 9.xx

Changes and Supplements during the version SEVENPAR 9.xx:

9.10: The online program history can be called in the "Help" menu.
9.09: The number of the performed iterations is written to the output text.
9.09: The iteration depth can be varied for the calculation of Helmert Parameters.
9.09: For a given iteration depth, the execution of the calculation is forced.
9.08: Order of the labels for the fields "Format", "Ellipsoid" and "Designat." corrected.
9.07: Text overlap when changing the checkbox "Reverse calculation" eliminated.
9.06: Elements on the surface designed more generous.
9.06: **Completely new design of the surface.**
9.05: New design for the "Calculate" button created.
9.04: The correct line number will be messaged if coordinates are incorrectly entered.
9.03: **The syntax of the complete rotation matrix can be output.**
9.03: Added checkbox for displaying the syntax of the rotation matrix.
9.02: **Instead of a simplified rotation matrix for small angles, the complete matrix is now calculated.**
9.01: Calculations of underlying GeoDLL significantly speeded up.
9.00: New main version number.

Program release SEVENPAR 8.xx

Changes and Supplements during the version SEVENPAR 8.xx:

- 8.03: Texts in the message windows are displayed in full length.
- 8.03: Countdown of presentation time in the message windows.
- 8.02: Improvements in the underlying GeoDLL.
- 8.01: Dialogs for opening files improved.
- 8.00: New main version number.

Program release SEVENPAR 7.xx

Changes and Supplements during the version SEVENPAR 7.xx:

- 7.03: Protocol file "protokol.dat" renamed to "protocol.log".
- 7.02: The electronic manual has been revised.
- 7.01: The program SEVENPAR gets a digital signature.
- 7.01: The installer gets a digital signature.
- 7.00: New main version number.

Sorry, from here the history is only available in German. Please translate from German into other languages with the Google Translator at: <https://translate.google.com/>

Program release SEVENPAR 6.xx

Changes and Supplements during the version SEVENPAR 6.xx:

- 6.05: Verschärfte Maßnahmen gegen Softwarepiraterie.
- 6.05: Kostenlose Updatemöglichkeit auf mindestens ein Jahr erhöht.
- 6.04: Vor dem Ausdrucken wird die Druckereinrichtung angeboten.
- 6.03: Abbruch des Fensters "Drucker einstellen" führte zum Verlust der Druckereinrichtung.
- 6.02: Shortcuts im Menü vervollständigt.
- 6.02: Nach einem Focuswechsel funktionierten Shortcuts im Menü nicht mehr.
- 6.01: Erfolgs- und Fehlerhinweise werden auf 64Bit-Systemen wieder durch eine Tonausgabe bestätigt.
- 6.01: Intensivtest unter WIN10 / 64Bit bestanden.
- 6.01: Intensivtest unter WIN10 / 32Bit bestanden.
- 6.01: Begleitende Informationen als PDF-Dateien anstelle von Wordpad DOC-Dateien.
- 6.00: Neue Haupt-Versionsnummer.

Program release SEVENPAR 5.xx

Changes and Supplements during the version SEVENPAR 5.xx:

- 5.04: Programm wurde WINDOWS©10 zertifiziert.
- 5.03: Grundeinstellung beim erstmaligen Programmaufruf verbessert.
- 5.02: Feldeinträge "Keine Bezeichnung" werden bei Sprachwechsel übersetzt.
- 5.01: Darstellungsbereich aller Zahlen im Ausgabefeld vergrößert.
- 5.00: Neue Haupt-Versionsnummer.

Program release SEVENPAR 4.xx

Changes and Supplements during the version SEVENPAR 4.xx:

- 4.16: Übersetzungen und Struktur des Installationsprogramms verbessert.
- 4.16: Iterationstiefe in Abhängigkeit von der Anzahl identischer Punkte festgelegt.
- 4.15: Internet-Link im Button "Online-Info" korrigiert.
- 4.14: Gelegentliche fehlerhafte Darstellung nach zurücksetzen auf "Standardwerte" beseitigt.
- 4.13: Koordinaten werden nicht mehr in die Protokoll-Datei eingetragen.
- 4.13: Koordinaten können in die Ausgabe-Datei geschrieben werden.
- 4.12: Geringfügige Abweichung bei der "Quadratischen Mittleren Klaffung" (RMS) beseitigt.
- 4.12: Geringfügige Abweichung bei der "Mittleren Räumlichen Klaffung" beseitigt.
- 4.11: Während des Einlesens von großen Quell- oder Ziel-Dateien blinkt ein Icon.
- 4.10: Berechnung mit zuvor 2.000 auf bis zu 30.000 identische Punkte erhöht.
- 4.09: Klaffungen können in die Ausgabe ein- oder ausgeschlossen werden.
- 4.09: Kartesische Koordinaten können in die Ausgabe ein- oder ausgeschlossen werden.
- 4.09: Die Anzahl der identischen Punkte wird in der Ausgabe angezeigt.
- 4.09: Die Anzahl der identischen Punkte wird im Erfolgsfenster angezeigt.
- 4.09: Die Anzahl der Ausreißer wird in einem Hinweisfenster angezeigt.
- 4.09: Die Anzahl der Ausreißer wird in der Ausgabe angezeigt.
- 4.08: Plausibilität der eingegebenen Koordinatenwerte wird geprüft.
- 4.07: Neben Popup-Fenster für Fehler- und Erfolgsmeldungen ein weiteres für Hinweise eingebaut.
- 4.06: Neue zusätzliche Bediensprache slowenisch.

4.05: Während langer Berechnungen blinkt ein Icon.
4.04: In der unlicenzierten Testversion wird der erste Helmert-Parameter nicht mehr auf Null gesetzt.
4.04: In der unlicenzierten Testversion ist die Berechnung auf 25 identische Punkte begrenzt worden.
4.03: Problem beim Aktualisieren des Hintergrunds von RadioButtons beseitigt.
4.02: Anzahl der Iterationen muss nicht mehr vorgegeben werden.
4.02: Anzahl der Iterationen erfolgt automatisch und wird optimiert.
4.01: Helmert- und Molodensky-Berechnungen werden in externer DLL GeoDLL berechnet.
4.01: Erhebliche Beschleunigung der Helmert- und Molodensky-Berechnungen durch C++ source code.
4.00: Neue Haupt-Versionsnummer.

Outlook:

Who can translate the language files used by the program SEVENPAR for the user interface into another language? Please report!

Hint:

The author would be happy to receive information and suggestions from users for further development of future versions of the program. Please send your experiences and suggestions to:

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