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1. ABOUT THIS SOFTWARE

This software calculates the distance between ALOS orbit scene center. This software calculates the distance for every pair of orbit scenes with the same scene conditions (same Observation Path Number, same Center Frame Number, same Observation Mode, same Orbit Direction).

2. PLATFORM

We tested this binary module software on the following platforms.

- SuSE Linux 7.3 (Kernel 2.4.40) Xeon 32bit
- RedHat Linux 9 (Kernel 2.4.40) Pentium4 32bit
- Windows XP SP2 Pentium4 32bit
- Macintosh OS X PowerPC G4

3. SOFTWARE FILE NAME

Linux : CalcBp_linux.tar.gz (about 1MByte)
Windows : CalcBp_win.zip (about 26KByte)
Macintosh : CalcBp_mac.zip (about 30KByte)

4. INSTALLATION

Place the software tar file in a directory of you choosing, and unzip and untar. Example for Linux:

```
$ tar zxf CalcBp.tar.gz
CalcBp/
CalcBp/work/
CalcBp/inventory/
CalcBp/lib/
CalcBp/lib/Calc_Bp_core
CalcBp/lib/palsar_table.dat
CalcBp/Calc_Bp

$ cd CalcBp/

$ ls
Calc_Bp
inventory/
lib/
work/
```
5. TO UNINSTALL
   Remove the CalcBp directory.
   Example for Linux:

   $ rm -rf CalcBp

6. GETTING ORBIT DATA
   You can get the ALOS orbit data from AUIG (ALOS User Interface Gateway).
   Download CSV files to the inventory directory under CalcBp.
   See the APPENDIX for information on how to use the AUIG.

7. HOW TO USE THIS SOFTWARE
   After downloading CSV files to the “inventory” directory, execute the “Calc_Bp”
   command.
   Example for Linux:

   $ Calc_Bp

   The “Calc_Bp” command calculates every orbit pair for same orbit scenes (orbits with
   the same Observation Path Number, same Center Frame Number and same Orbit Direction) from
   the CSV files in the inventory directory.

8. RESULTS OF CALCULATIONS
   The results of orbital calculations are output to the result.txt file.

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9. COPYRIGHT
   JAXA has copyrighted this software. You may not copy this archive or collection.

10. RELEASE FROM LIABILITY
    JAXA is not liable for any loss or damage which may result from use of this software.

11. REDISTRIBUTION
    You may not copy or redistribute this software.
12. APPENDIX
12.1 HOW TO USE AUIG

(1) Access to AUIG.

URL= https://auig.eoc.jaxa.jp/

(2) Change to English page

If you see a Japanese page, click on [English] button.
(3) Login to AUIG

Even if you do not have ID, you can login as a guest.
User ID is a “GUEST999”.
Password is a “AuigV3.0”.
Click on [Login] button.
(4) Go to Search window.
Click on [Order and Obs. Requests] link.
(5) Input conditions for search
① Search Type: Check [Archives Data] box.
② Sensor: Check [PALSAR] box.
③ Search Area: Input Lat. and Lon. for 4 corners. (example shown is for HAWAII)
*: You can input the Lat. and Lon. by using the map tool to select a bounding box.
Observation Date: Input start day and end day for search.
⑥ Set detail conditions

- Set conditions on “Ope. Mode”, “Polarization” and “Off-nadir” of “Archives Data”.
- Set condition on “Orbit Direction”.

⑥ Click [Search] button to perform search
(6) Download the search file (search file format is CSV).
① Click on [Option] → [CSV].
② Click on [Download].

Save Search Result (Archives Data)

Download starts when 'Download' is clicked.

[Note]
When the CSV file is opened by Excel, the item at the date and time might not be correctly displayed.
Please select the item at the date and time, and set the display form to the date and the time type.

Close
(7) Logout
① Close the AUIG window.
② Click on [Logout]
(8) Check the results of the search

If you login with your ID, please check the result of the search before searching.

① Click on [Customize] → [Archives].

② Select items in "Display item". You need the following items to use this software:
Observation Path Number, Center Frame Number, Observation Mode, Table Number, Orbit Direction, Scene Center Day, Scene Center Time, Off-nadir angle, Scene ID, Scene Center Latitude, Scene Center Longitude, Yawsteering Flag, Orbit Data, Position Vector X Component, Position Vector Y Component, Position Vector Z Component, Velocity Vector X Component, Velocity Vector Y Component, Velocity Vector Z Component

You can select the necessary items in “Display item” by using either of the following methods. After selecting once, the selection will stay the same.
a. Method 1: Append 7 items to the Default Setting
   (a) Select [Default Setting] under Pattern Selection, and click on [Load] button.
   (b) Append the following 7 items to the “Display item” list by highlighting the item in the list on the left and then clicking on the “>>” symbol.
b. Method 2: Use “Recommend Pattern 1”
   (a) Select [Recommended Pattern 1] under Pattern Selection, and click on the [Load] button.

When “Display item” selection is complete, click on the [OK] button.