

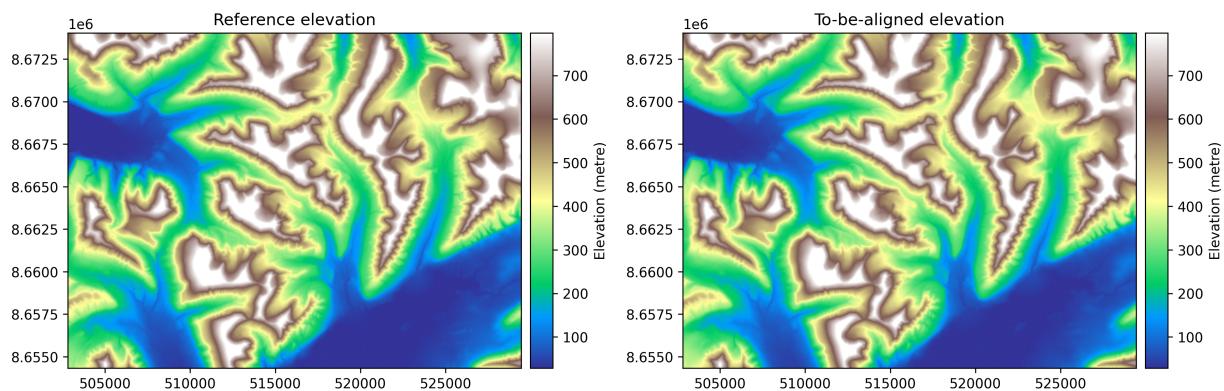
Accuracy assessment report — xDEM

xDEM version: 0.2.3.dev26

Date: 19/02/2026 09:50:22

Computing time: 24.24 seconds

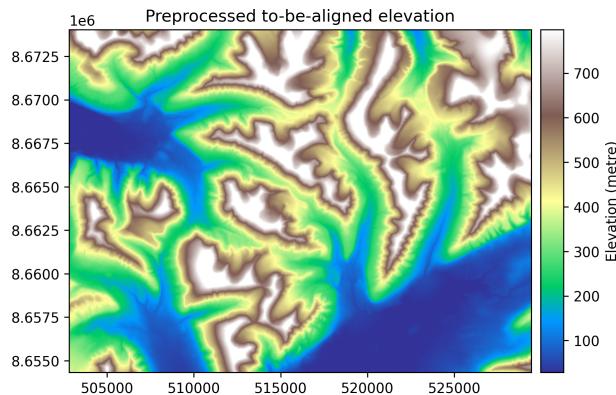
Elevation inputs



Information about inputs

| Information | Value |
|--------------------|--|
| reference_elev | {'path_to_elev': '../../.xdem/example_data/Longyearbyen/data/DEM_2009_ref.tif', 'from_vcrs': 'None', 'to_vcrs': 'None', 'downsample': '1'} |
| to_be_aligned_elev | {'path_to_elev': '../../.xdem/example_data/Longyearbyen/data/DEM_1990.tif', 'path_to_mask': '../../.xdem/example_data/Longyearbyen/data/glacier_mask/CryoClim_GAO_SJ_1990.shp', 'from_vcrs': 'None', 'to_vcrs': 'None', 'downsample': '1'} |
| sampling_grid | reference_elev |

Preprocessed elevation



Coregistration user configuration

Information Value

```
step_one      {'method': 'LZD', 'extra_information': {"subsample": 10000}}
process       True
```

LZD inputs

Information Value

```
random        {'subsample': '10000', 'random_state': '42'}
fitorbin      {'fit_minimizer': 'least_squares', 'fit_loss_func': 'linear'}
iterative     {'max_iterations': '200', 'tolerance': '0.01'}
specific      {}
affine        {'only_translation': 'False'}
```

LZD outputs

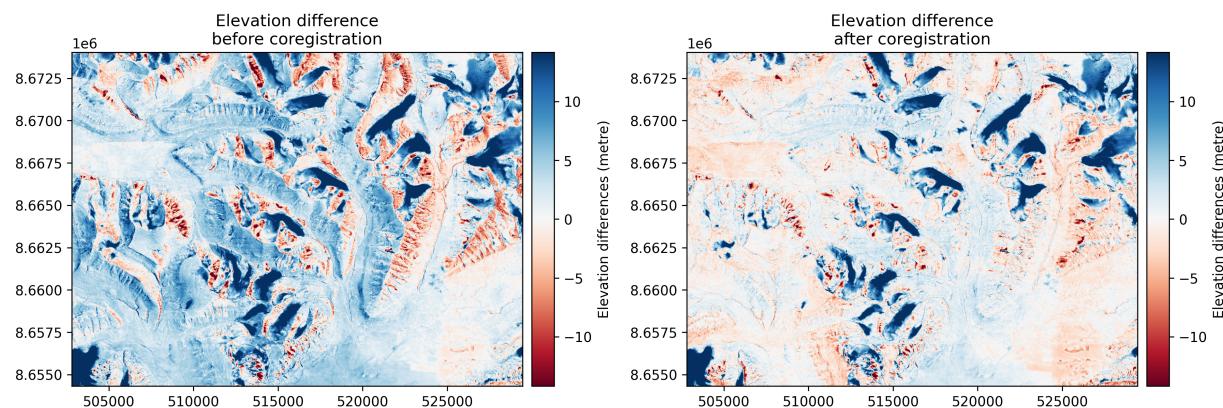
Information Value

```
{'centroid': '(515650.83, 8663888.17, 353.11)', 'matrix':
'[[ 9.99999985e-01 1.17578419e-04 -1.30099078e-04
  1.02548967e+01]\n[-1.17594385e-04 9.99999986e-01
  -1.22719549e-04 1.90590312e+00]\n[ 1.30084647e-04
  1.22734846e-04 9.99999984e-01 -1.93544013e+00]\n
  [ 0.00000000e+00 0.00000000e+00 0.00000000e+00
  1.00000000e+00]]', 'shift_x': '10.25', 'shift_y': '1.91', 'shift_z': '-1.94'}
random        {'subsample_final': '10000'}
```

Statistics

| Data | Aligned elevation | Difference before coreg | Difference after coreg |
|-------------|--------------------|-------------------------|------------------------|
| Median | 363.33892822265625 | 2.766407012939453 | 0.2544441223144531 |
| NMAD | 291.80120849609375 | 3.805830478668213 | 2.403942584991455 |
| Valid count | 1309704.0 | 1312020.0 | 1309704.0 |

Elevation differences



Differences histogram

