PENGOLAHAN DATA SURVEI GARIS PANTAI

116'26'33 4609'2' 8'23'16'63 436636'9072972 Plawaness Sembalso

> DISUSUN OLEH : SUDOMO MANURUNG TASHADDA FADHLUR RAZZAQ MAHYAN DANU KUSUMA CAHYO GROHO PURNOMO

I. PENGOLAHAN PASUT

1. Penyiapan RAW data pasut BIG durasi satu tahun dengan format *.txt seperti pada gambar di bawah.

| DATA LAPANGAN 👂 3. Rawdata Hasil Peng | amatan Pasut 👂 Pasut BIG | > Rawdata > | |
|---------------------------------------|--------------------------|-------------|------|
| Name ^ | Date modified | Туре | Size |
| 📒 Cilacap - Stasiun BIG | 19/12/2017 19:58 | File folder | |
| 🧵 Glagah - Stasiun BIG | 19/12/2017 19:58 | File folder | |
| 🔋 Pamayangsari - Stasiun BIG | 19/12/2017 19:58 | File folder | |
| 📒 Pameungpeuk - Stasiun BIG | 19/12/2017 19:58 | File folder | |
| 📕 Pangandaran - Stasiun BIG | 19/12/2017 19:58 | File folder | |
| 📒 Pelabuhan Ratu - Stasiun BIG | 19/12/2017 19:58 | File folder | |

Folder Penyiapan RAW Data Pasut

| e Vlew his PC > sgt {C;} > 1. DATA LAPANGAN > 3. Rawdata Hasil Pen | gamatan Pasut → Pasut BIG | > Rawdata > Cilaca | p - Stasiun BIG |
|--|---------------------------|--------------------|-----------------|
| Name | Date modified | Type | Size |
| Cila_2016 | 09/12/2017 18:51 | Text Document | 188 KB |
| Cilacap_21092017_27112017 | 27/11/2017 10:12 | Text Document | 2.396 KB |
| | | | |

RAW Data Pasut Cilacap

- 2. Melakukan validasi data pasut atau preprocessing.
 - Mengurutkan data dengan waktu perekaman sehingga tidak terdapat lagi time lag pada data.
 - Pembersihan data yang outlier.
 - Melakukan reshiffting terhadap titik referensi palm yang digunakan (dalam hal ini palm 3 m) reshiffting ini dilakukan terhadap sebagian atau semua data.



www.sgtgeomedia.com, Telp/Fax: 021-22887612

• Data yang tervalidasi akan tersimpan dalam Extension *.valid dan menjadi data masukan untuk processing data.



Proses Pembersihan Data Outlier



Melakukan reshiffting terhadap palm



www.sgtgeomedia.com, Telp/Fax: 021 - 22887612



Contoh Hasil Data Tervalidasi

- 3. Melakukan processing data dengan software T-tide.
 - Processing dilakukan untuk hasil processing 19 tahun yang meliputi:
 - a. Hasil analisa harmonik (konstanta harmonik) dari komputasi 19 tahun
 - b. Amplitude dan fasa dari komputasi 19 tahun
 - c. MSL, LAT, HAT, Z0 dari prediksi 19 tahun yang sudah ter-reshifting dengan palm
 - Semua hasil komputasi telah menyesuaikan tinggi (offset) palm kecuali Stasiun Pamempeuk
 - Khusus stasiun Pamempeuk ter-offset ke TAP dengan tinggi 10 m dari referensi

| | Command Window |
|---|----------------|
| (1) New to MATLAB? Watch this <u>Video</u> , see <u>Examples</u> , or read <u>Getting Started</u> . | |
| number of standard constituents used: 59 Forced fit to M10 Points used: 7147 of 7297 percent of var residual after lsqfit/var original: 13.95 % Greenwich phase computed with nodal corrections applied to amy and phase relative to center time Using nonlinear bootstrapped error estimates Generating prediction with nodal corrections, SNR is 1.000000 percent of var residual after synthesis/var original: 15.13 % | plitude |

Proses Running Komputasi Pasut



| A | Command Window |
|---|--|
| P New to MATLABT Watch this <u>Video</u> , see <u>Examples</u> , or read <u>Getting Started</u> | |
| preu | |
| MIXED, MAINLY SEMIDIURNAL | |
| Mean Tide Level = 179.00961 cm | |
| Highest Tide = 281,00000 cm | |
| Lowest Tide = 29.00000 cm | |
| MSL = 181,00000 cm | |
| LAT = 05.64209 cm | |
| HAT = 276.35711 cm | |
| HHWL = 367.53940 cm | |
| MHWS = 231.56847 cm | |
| MHWH = 201.21693 cm | |
| MINS = 130,43153 cm | |
| MLWN = 160,78307 cm | |
| MMMM = 243.60479 cm | |
| MLHN = 169,12061 cm | |
| MMLW = 172.07939 cm | |
| MLLN = 118.33521 cm | |
| LLWL = 94.46060 cm | |
| MHNL = 243.66479 mm | |
| MINL = 118.33521 cm | |
| ans = | |
| 2016 = 181.000 85.643 276.357 267.538 281.5 | 168 201.217 130.432 160.783 243.665 199.121 172.879 118.335 94.461 243.666 118.355 |
| B 22 | |
| 200.M | |
| | |
| | |
| | |

Proses Sudah Selesai

4. Melakukan Co-tidel Chart



Gambar diatas adalah penentuan Indeks atau NLP berdasarkan co-tidal chart Pasut BIG





Gambar hasil pembagian NLP berdasarkan pengaruh co-tidal chart 6 stasiun permanen pasut BIG

II. PENGOLAHAN GARIS PANTAI

1. Pengisian atribut pada layer "garispantai_pt" dan "titik_kedalaman_pt"

Berikut ini adalah gambar field rawdata format alat:

| ga | is_pa | ntai_pt_raw | | | | | | | | | | | |
|----|-------|-------------|----------|-------------|------------|-----------|-------|-------|----------|----------|-----------|------------|------------|
| | FID | Shape * | Point_ID | Northing | Easting | Elevation | RMSH | RMSV | Date | Time | Latitude | Longitude | H_Elipsoid |
| • | 0 | Point ZM | 600A | 9178729,561 | 687420,347 | 6.046 | 0.006 | 0.01 | 9/7/2017 | 11:22:45 | -7,426626 | 106,698211 | 22,167 |
| | 1 | Point ZM | 600B | 9178705,952 | 687415,813 | 5,95 | 0,006 | 0.011 | 9/7/2017 | 11:23:26 | -7,42684 | 106,698171 | 22,071 |
| | 2 | Point ZM | 600C | 9178696,859 | 687415,828 | 4,376 | 0,006 | 0.01 | 9/7/2017 | 11:24:01 | -7,426922 | 106,698171 | 20,497 |
| | 3 | Point ZM | 6000 | 9178691.079 | 687416,203 | 3,257 | 0,006 | 0.01 | 9/7/2017 | 11:24:14 | -7,426974 | 106,698175 | 19,378 |
| | 4 | Point ZM | 601D | 9178660,082 | 687298,47 | 2,613 | 0,006 | 0,01 | 9/7/2017 | 11.26.38 | -7,427259 | 106,69711 | 18,734 |
| | 5 | Point ZM | 601C | 9178669,528 | 687297,128 | 3,051 | 0,006 | 0,01 | 9/7/2017 | 11:26:52 | -7,427173 | 106,697097 | 19,172 |
| | 6 | Point ZM | 601B | 9178697,195 | 687297.08 | 4,787 | 0.006 | 0.01 | 9/7/2017 | 11:27:20 | 7,426923 | 106,697096 | 20,908 |
| | 7 | Point ZM | 601A | 9178713.002 | 687297,322 | 5.973 | 0.006 | 0.01 | 9/7/2017 | 11:27:36 | -7,42678 | 106,697097 | 22.094 |
| | 8 | Point ZM | 602A | 9178737,22 | 687185,694 | 6,139 | 0,007 | 0.011 | 9/7/2017 | 11:29:28 | -7,426565 | 106,696085 | 22,26 |
| | 9 | Point ZM | 6028 | 9178727,391 | 687181,4 | 5.373 | 0,006 | 0.011 | 9/7/2017 | 11:29:52 | -7,426654 | 106,696047 | 21,494 |
| | 10 | Point ZM | 602C | 9178697,517 | 687174,181 | 3,524 | 0,006 | 0,01 | 9/7/2017 | 11:30:19 | -7,426924 | 106,695982 | 19,645 |
| | 11 | Point ZM | 602D | 9178689,413 | 687171,497 | 2.885 | 0,006 | 0,01 | 9/7/2017 | 11:30:34 | -7,426998 | 106,695958 | 19,006 |
| | 12 | Point ZM | 603D | 9178725,788 | 687038,856 | 2.623 | 0,009 | 0,015 | 9/7/2017 | 11:33:08 | -7,426674 | 106,694756 | 18,744 |
| | 13 | Point ZM | 603C | 9178734,739 | 687040,151 | 3,461 | 0,006 | 0.011 | 9/7/2017 | 11:33:19 | -7,426593 | 106,694767 | 19.582 |
| | 14 | Point ZM | 603B | 9178754,711 | 687045,426 | 5,572 | 0,006 | 0,01 | 9/7/2017 | 11:33:43 | -7,426412 | 106,694814 | 21,693 |
| | 15 | Point ZM | 603D | 9178766.015 | 687048,25 | 6.474 | 0,011 | 0.015 | 9/7/2017 | 11:33:57 | -7,426309 | 106,694839 | 22,595 |
| | 16 | Point ZM | 604A | 9178781,989 | 686922,856 | 6,831 | 0.01 | 0,016 | 9/7/2017 | 11:36:08 | -7,426169 | 106,693703 | 22,952 |
| | 17 | Point ZM | 604B | 9178772.832 | 686918.979 | 5.051 | 0.006 | 0.011 | 9/7/2017 | 11:36:34 | 7.426252 | 106.693668 | 21.1/2 |

Kemudian tambahkan field berikut.

| Elevation | RMSH | RMSV | Date | Time | Latitude | Longitude | H Elipsoid | H_Pasut | Pasut | LAT | HAT | KedalamanD | Kdimn_fix | Titik |
|-----------|-------|-------|-----------|----------|-----------|------------|------------|---------|----------------|----------|----------|------------|-------------|---|
| 1,446 | 0,01 | 0,015 | 7/25/2017 | 13:50:22 | -8,953891 | 106,441893 | 16,687 | 1,81 | Passounan Ratu | 1,048756 | U | V,5 | 0,201244 L | - |
| 1,997 | 0,004 | 0,006 | 7/25/2017 | 13:51:32 | -8,953837 | 106,44185 | 17,238 | 1,81 | Palabuhan Ratu | 1,048756 | 0 | 0 | 0,761244 0 | |
| 3,754 | 0,002 | 0.003 | 7/25/2017 | 13.19.22 | -6,953262 | 106,441812 | 18,997 | 0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | 1,731459 B | <u>, </u> |
| 6.647 | 0.023 | 0.042 | 7/25/2017 | 14:28:42 | -6,954411 | 106,441155 | 21,875 | 2 | Palabuhan Ratu | 1,048756 | 0 | 0 | 0.951244 C | 5 |
| 3,423 | 0,019 | 0,033 | 7/25/2017 | 14:27:52 | -6,954432 | 106,441114 | 18,65 | 2 | Palabuhan Ratu | 1,048756 | 0 | 0,5 | 0,451244 [] |) — |
| 3.24 | 0.003 | 0,004 | 7/25/2017 | 14:11:32 | 6.953775 | 106,441101 | 18,471 | 0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | 1,731459 8 | 5 |
| 1.36 | 0.026 | 0.052 | 7/25/2017 | 14.53:32 | 6,954171 | 106,440485 | 16,581 | 2 | Palabuhan Ratu | 1,048756 | 0 | 0,5 | 0,451244 D | , |
| 5.534 | 0,016 | 0.032 | 7/25/2017 | 14:40:52 | -8,954034 | 106,440475 | 20,755 | 0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | 1,731459 B | ş |
| 2,109 | 0,005 | 0.009 | 7/25/2017 | 14 55 22 | -6.954101 | 106,440459 | 17,329 | 2 | Palabuhan Ratu | 1,048756 | 0 | 0 | 0.951244 C | 5 |
| 1,639 | 0.021 | 0.044 | 7/25/2017 | 15:25:02 | -6,954295 | 106,438963 | 16,838 | 2.09 | Palabuhan Ratu | 1,048756 | 0 | 0,5 | 0.541244 D |) |
| 6,364 | 0.005 | 0,01 | 7/25/2017 | 15:10:22 | -6,954023 | 106,438944 | 21,564 | 0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | 1,731459 B | 3 |
| 2,451 | 0.005 | 0.011 | 7/25/2017 | 15:25:22 | -6,954176 | 106,438938 | 17,65 | 2.09 | Palabuhan Ratu | 1,048756 | 0 | 0 | 1,041244 C | ; |
| 3,109 | 0.032 | 0.056 | 7/26/2017 | 08 39.22 | -6.95569 | 106,435961 | 18,26 | 2.03 | Palabuhan Ratu | 1,048756 | 0 | 0.5 | 0.481244 D | 5 |
| 4,242 | 0.012 | 0.022 | 7/26/2017 | 08.39.12 | 6,955618 | 106,435965 | 19,393 | 2.03 | Palabuhan Ratu | 1.048756 | 0 | 0 | 0.981244 C | 5 |
| 6,343 | 1,209 | 1.08 | 7/26/2017 | 08:20:32 | -6,955485 | 106,435926 | 21,494 | 0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | 1,731459 8 | \$ |
| 2.613 | 0.016 | 0.039 | 7/26/2017 | 09:13:22 | -6.955977 | 106,435598 | 17,756 | 1.09 | Palabuhan Ratu | 1.048756 | 0 | 0.5 | -0.458756 D | 5 |



Langkah pertama adalah mengisi field "H_Pasut" berdasarkan tanggal dan jam pengukuran, seperti pada gambar berikut:

| fasting | Sievation | RMSH | RMSV | Date | Tame | Latitude | Longitude | If Elipsoid | H Pasut | Pasut | LAT | TAB | Redeleman2 | Editor fix | TRN |
|-----------|-----------|-------|-------|-----------|----------|------------|------------|-------------|----------|--------------------|----------|----------|------------|------------|-----|
| 59290,521 | 1,440 | 0.01 | 0.015 | 7/25/2017 | 13:50:22 | -6,953891 | 108,441093 | 16.0 | 1.01 7 | Palabuhan Ratu | 1.048755 | | 4.5 | 5,251244 | 0 |
| 59285,888 | 1,997 | 0.004 | 0.006 | 7/25/2917 | 13:51:32 | -6.953837 | 108.44185 | 17.2 | 1.81.14 | Platuten Ratu | 1.048758 | | 0 | 8,761244 | C. |
| 59281,875 | 3,754 | 0.002 | 0.663 | 7/25/2017 | 13,19.22 | -8.953262 | 196,441812 | 18.9 | 0.9 | Alabutan Rolu | 1.048758 | 2,780215 | 0 | 1,731459 | 6 |
| 19255,812 | 8,847 | 0.023 | 0.042 | 7/25/2017 | 14:25:42 | -8,954411 | 105,441155 | 21,8 | 21 | Nisbulten Retu | 1.048758 | | Ó | 0,951244 | C |
| 9204,347 | 3,473 | 0.019 | 0,033 | 7/25/2017 | 14:27:52 | -6,954432 | 105,441314 | 144, | 2.9 | Plabuten Ratu | 1.040756 | | -0,5 | 0,451244 | D |
| 9293,077 | 5.24 | 0.000 | 0.004 | 7/25/2017 | 14:11:32 | -6,953775 | 106,441101 | 18,4 | 0 9 | P bibuitan Ratu | 1.046756 | 2.780215 | 0 | 1,731459 | 長. |
| 9134,888 | 1,38 | 0,028 | 0.052 | 7/25/2017 | 14:53:32 | -8,954171 | 105,440485 | 16,5 | 20 | Repairen Rata | 1,048758 | | | 0,451244 | D. |
| 2133,888 | 5,534 | 0.016 | 0.032 | 7/25/2017 | 14.48.52 | -8,054034 | 108,440475 | 20.7 | 0 1 | Niebutan Ratu | 1.048758 | 2,780215 | ¢. | 1,731459 | 8 |
| 8132,088 | 2,109 | 0,005 | 0.009 | 1/25/2017 | 14:55:22 | -6,954101 | 105,440409 | 17,5 | 8 24 | Plaibuttan Ratu | 1,045758 | | D D | 0.951244 | C |
| 8966.661 | 1,639 | 0.021 | 0.044 | 7/25/2017 | 15:25.02 | 4.954295 | 106,438963 | 16.8 | 2.99 5 | Palajbuitan Rofu | 1.048756 | 0.00 | | 0,541244 | 0 |
| 8964,958 | 5,364 | 0.005 | 0.01 | 7/25/2017 | 15:19:22 | -8,954823 | 106,438944 | 21,5 | 0 0 | Palabuhan Ratu | 1.048758 | 2,780245 | | 1,731459 | 8 |
| 8963,924 | 2,451 | 0.005 | 0,011 | 7/25/2917 | 15:25:22 | -8,954178 | 108,438938 | 57. | 2,29 3 | Nabuhan Ralu | 1.048758 | 4 | Ú. | 1,041244 | Ċ. |
| 8636,871 | 3,109 | 0.032 | 0,056 | 7/26/2017 | 88:39:22 | -6,95569 | 106,435961 | 14, | 2,05 8 | Nabutan Ratu | 1.040756 | | 0.5 | 0,481244 | 0 |
| 8634,978 | 4,242 | 0.012 | 0.022 | 7/26/2017 | 00.28:12 | -4.985618 | 105,435965 | 19.3 | 2.63 8 | Reputan Rata | 1.048756 | | 0. | 0.981244 | ζ. |
| 8830,729 | 6,343 | 1,209 | 1.08 | 7/26/2017 | 08.28.32 | -8,955485 | 108,439926 | 21.4 | 0.9 | Alabutter: Rotu | 1.048758 | 2.788215 | 0 | 1,731450 | 6 |
| 1534,259 | 2,613 | 0.016 | 0.839 | 7/26/2917 | 09.13:22 | -6,955977 | 108,435898 | 17,31 | 1,00 0 | Adabuitain Ratu | 1.048756 | | 1.5 | -0,450758 | D. |
| 1588,878 | 4,541 | 0.003 | 0,007 | 7/28/2017 | 09-13:52 | -8,955888 | 105,435549 | 19,65 | 3,00 5 | P Sebutan Retu | 1.D48758 | | 0 | 0,041244 | (C) |
| 8581,607 | 5,154 | 0.008 | 0.016 | 7/26/2017 | 08:55:22 | -8,855791 | 105,435484 | 20.2 | 12 W F | Revolution Retuil | 1.048758 | 2,700215 | 0 | 1,731458 | E . |
| 8551,353 | 4,698 | 0.003 | 0,007 | 7/26/2017 | 19:49:02 | -8,958094 | 196,43521 | 19.8 | 1,19 6 | P Inibult Art Robu | 1.048758 | 3 | 0 | 0.041244 | 0 |
| 8548,871 | 2,002 | 0.013 | 0,017 | 7/26/2017 | 11:03:32 | -6,957813 | 108,435192 | 17, | 1. t.t.) | Nebultan Retur | 1.048758 | 1 | 0.5 | -0,446758 | 0 |
| 8545,293 | 5,621 | 0.004 | 0.01 | 7/28/2011 | 09/20/02 | -6,958047 | 100,435165 | 20,75 | 0. | Nabutan Rafu | 1.040756 | 2,780215 | 0 | 1,731459 | 8 |
| 8541,515 | 3,254 | 0.006 | 0,009 | 7/26/2017 | 10:44:52 | 4,957623 | 106,435125 | 10,4 | 0,87 8 | Relation Ratu | 1.040756 | | 0 | -8,078756 | C. |
| 58524,88 | 2,715 | 0.018 | 0.434 | 7/26/2017 | 10.25.32 | -6.956637 | 106,434972 | 17.8 | 0.97 9 | Platuten Ratu | 1.048756 | . 0 | 現長 | -8,578758 | D. |
| 58516,77 | 4,738 | 0.003 | 0,005 | 7/28/2017 | 10,24:42 | -8.956582 | 108,434896 | 19.8 | 0.97 1 | Assounce: Rata | 1.048756 | | 0 | -0,078756 | C |
| 8512,035 | 2,805 | 0.025 | 0,032 | 7/26/2017 | 11:35:02 | -6,9588229 | 108,43488 | 17.7 | 1.1.1 | Nebutan Retu | 1.048758 | | 0,5 | -0,448758 | D |
| 5511,428 | 4,001 | 0.003 | 0.004 | 7/26/2017 | 11:15:52 | -6,957867 | 100,434854 | 19.4 | 1,1,1,1 | Rebutan Refu | 1.045758 | | . 0 | 0,051244 | C |
| 58587,49 | 5,023 | 0.003 | 0.867 | 7/26/2017 | 10.05.22 | -6,955489 | 106,434814 | 20.1 | 0.14 | Palabuiteri Ratu | 1.048755 | 2,780215 | 0 | 1,731459 | 8 |
| 8424,971 | 2,938 | 0.031 | 0.05 | 7/26/2017 | 12:06:82 | -8,958224 | 106,434072 | 18,0 | 1,28 (| Nebuten Ratu | 1.048758 | | 東京 | -0,288758 | D. |
| 8422,484 | 4,103 | 0.003 | 0.000 | 7/28/2017 | 12:87:52 | -8.958878 | 108.434058 | 19.2 | 1,20 8 | Platutan Ratu | 1.048750 | | 0 | 0,231244 | C |
| 6422,347 | 1,906 | 0.003 | 0.005 | T/26/2017 | 11.49.22 | -6.957935 | 105,434548 | 21,0 | 0.5 | Polisibutter: Retu | 1.046756 | 2,700215 | 0 | 1,731459 | 8 |
| 8326,755 | 2,491 | 0.023 | 0.944 | 7/26/2017 | 12.45:52 | -6.958269 | 105.433282 | 17.5 | 1,2818 | Allabutan Rolu | 1.048756 | | 0.6 | -4.268756 | 0 |
| 8328.974 | 3,088 | 0.022 | 0.041 | 7/26/2017 | 12:48:22 | -8.958219 | 106.433291 | 10.1 | 1.28 1 | Postutien Ratu | 1.048758 | | 0 | 0,231244 | C : |
| 5324,051 | \$,756 | 0.003 | 0.005 | 106/2017 | 12:25:32 | -6,957952 | 108,433164 | 20.8 | 0 | Nabuhan Ratu | 1.048756 | 2,780215 | 0 | 1,731459 | 8 |
| 8243,969 | 2,244 | 0.016 | 0,029 | 7/26/2017 | 14:50:22 | -6,958386 | 108,432424 | 17.3 | 2.2 5 | Risbutten Ratu | 1.048758 | 4 | 0 | 1,551244 | C |
| 8243.384 | 5,372 | 0.007 | 0.013 | 7/26/2017 | 1431/02 | -8,958901 | 106,432428 | 29. | 0.9 | Rabuitan Rafu | 1.048758 | 2,780215 | | 1,731458 | 8 |
| 3185.748 | 1.223 | 0.03 | 0.057 | 7/26/2017 | 15:26:42 | -6.95839 | 108,431727 | 16.2 | 221 | Nabultan Ratu | 1.048758 | | 0.5 | 8.651244 | D- |
| 5154,301 | 2,613 | 0.004 | 0.007 | 1060017 | 15.25.52 | -8,058252 | 106,431713 | 17. | 2.2 1 | Abstrat: Ratu | 1.048756 | | 0 | 1,151244 | C |
| 5164,358 | \$,577 | 0.004 | 0.013 | 7/26/2017 | 15:06:02 | -6,9588221 | 136,431713 | 29.6 | 0 5 | Palabultan Refai | 1.045758 | 2.780215 | 0 | 1,731459 | 8 |
| 8088.324 | 1,28 | 0.033 | 0.679 | 7/26/2017 | 16:85:02 | -6.958382 | 105.435235 | : 16.3 | 2,11 8 | Relation Police | 1.048756 | - 2 | 8.5 | 0.981244 | D-1 |
| 8188 678 | 2 994 | 0.003 | 0.667 | 7/96/2017 | 16-64-22 | JR 9983303 | 155.431529 | 18.0 | 2.11 4 | A mitution Date | 1 049758 | | 0 | 1.061744 | iê. |

- 2. Penyiapan data garis pantai terestris dan digit CSRT untuk pembentukan DEM
 - a. Berikut ini adalah gambar data garis pantai dari terestris untuk pembentukan DEM.





Untuk mendapatkan nilai elevasi fix dari A, B, C, D adalah dengan formulasi dibawah ini:

- Penghitungan elevasi fix untuk Batimetri: Elevasi fix batimetri adalah nilai kedalaman terhadap LAT, sehingga untuk mendapatkan nilai elevasi fix batimetri terhadap LAT diperlukan data elevasi pasang surut pada jam pengukuran batimetri, nilai LAT, dan kedalaman hasil pengukuran. Elevasi fix = Kedalaman terukur – elevasi pasang surut + LAT
- Penghitungan elevasi fix titik D Elevasi fix = Kedalaman terukur – elevasi pasang surut + LAT
- Penghitungan elevasi fix titik C Elevasi fix = elevasi pasang surut - LAT
- 4. Penghitungan elevasi fix titik B Elevasi fix = HAT - LAT
- Penghitungan elevasi fix titik A Elevasi fix = Elevasi Geoid di titik A – Elevasi Geoid di titik B + Elevasi Fix di titik B

Salah satu penerapan formula diatas seperti pada sample point dibawah ini:

| ID | HAT | LAT | Elevasi Fix | Elevasi | H_pasut | H_survey |
|----------------|----------|----------|-------------|---------|---------|-------------|
| 1300B | 8,066953 | 6,064013 | 2,00294 | 2,27 | | |
| 1300A | | | 3,629 | 3,896 | | |
| 1300C | | | 0,925987 | | 6,99 | |
| 1300D | | 0,425987 | -0,425987 | | 6,99 | 0,5 -0,5 |
| E2 (Pamempeuk) | | | 33,374013 | | 7,28 | 34,59 |
| | | | 0,154013 | | 6,91 | 1 |

Sehingga menghasilkan atribut kedalaman/elevasi fix, seperti pada gambar dibawah ini:



| H_Pasut | Pasut | LAT | HAT | KedalamanD | Kdlmn_fix | Titik |
|---------|------------------|----------|----------|------------|-----------|-------|
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -1,757459 | A |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| 1,8 | Palabuhan Ratu | 1,048756 | 0 | 0 | -0,761244 | C |
| 1,8 | 1 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,261244 | D |
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -1,785459 | A |
| - | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| | 2 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,951244 | C |
| | 2 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,451244 | D |
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -2,053459 | A |
| 0.0 | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| | 2 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,951244 | C |
| | 2 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,451244 | D |
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -1,797459 | A |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| 2,0 | 9 Palabuhan Ratu | 1,048756 | 0 | 0 | -1,041244 | C |
| 2,0 | Palabuhan Ratu | 1,048756 | 0 | 0 | -0,541244 | D |
| 1 | Palabuhan Ratu | 1,048756 | 0 | 0 | -7,957459 | A |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| 2,0 | 3 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,981244 | C |
| 2,0 | 3 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,481244 | D |
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -1,923459 | A |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| 1,0 | 9 Palabuhan Ratu | 1,048756 | 0 | 0 | -0,041244 | C |
| 1,0 | Palabuhan Ratu | 1,048756 | 0 | 0 | 0,458756 | D |
| | Palabuhan Ratu | 1,048756 | 0 | 0 | -2,403459 | A |
| | Palabuhan Ratu | 1,048756 | 2,780215 | 0 | -1,731459 | В |
| 1,0 | Palabuhan Ratu | 1,048756 | 0 | 0 | -0,041244 | C |

b. Berikut ini adalah gambar data garis pantai dari CSRT yang untuk pembentukan DEM.



Nilai B diambil dari nilai HAT komputasi Pasut Per area pasut seperti pada gambar dibawah ini:



| Editor 🕨 🛌 🦯 | て石田 | NI | 中人う | | <u> </u> | 2000 | 3 1 |
|---|-----------|-----------|------------------|---------------|-----------|---------------------|-----|
| ble Of Contents | ₽× | Table | | | | | |
| 9 0 4 1 | | 1 · 1 · | B B C d p | ĸ | | | |
| a Layers | ~ | Garis par | ntai B dari CSF | RT vang sudah | diisi HAT | l sesuai area pasut | |
| 🗏 🛛 garis pantai pt hasil edit atribut | | FID | Shape * | ELEVATION | LAYER | Pasut | |
| | | • 0 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| | | 1 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| 🗏 🗆 garis pantai pt hasil edit atribut | | 2 | Polyline ZM | 2,065865 | csrt | Pamayangsari | |
| 0 | | 3 | Polyline ZM | 2,3348 | csrt | Pangandaran | |
| | | 4 | Polyline ZM | 2,3348 | csrt | Pangandaran | |
| 🖃 🗆 garis_pantai_pt_raw | | 5 | Polyline ZM | 2,3348 | csrt | Pangandaran | |
| • | | 6 | Polytine ZM | 2,181108 | csrt | Cilacap | |
| | | 7 | Polyline ZM | 2,181108 | csrt | Cilacap | |
| 🖃 🖬 Garis pantai B dari CSRT yang sudah d | liisi HAT | 8 | Polyline ZM | 1,021795 | csrt | Glagah | |
| _ | | 9 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| | | 10 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| ⊟ 2 contour_co_amplitudo | | 11 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| - | | 12 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| | | 13 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| □ Indeks_Paket3_2017 | | 14 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| sall other values> | | 15 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| D | 150 | 16 | Polyline ZM | 1,731458 | csrt | Palabuhanratu | |
| Pasut_BIG | | 17 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| Cilacap | | 18 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| | 16 | 19 | Polyline ZM | 2,181108 | csrt | Cilacap | |
| 🛄 Giagan | | 20 | Polyline ZM | 2,00294 | csrt | Pamengpeuk | |
| 📼 Palabuhan Ratu | | 21 | Polyline ZM | 2,3348 | csrt | Pangandaran | |

Tetapi karena diatas nilai LAT, maka nilai elevasi B menjadi (-) minus, seperti pada gambar dibawah ini:

| Conte | ents Preview | Description | | | |
|-------|--------------|-------------|-----------|-------|--------------|
| | FID | Shape | ELEVATION | LAYER | Pasut |
| | 0 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 1 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 2 | Polyline ZM | -2,065865 | csrt | Pamayangsar |
| | 3 | Polyline ZM | -2,3348 | csrt | Pangandaran |
| | 4 | Polyline ZM | -2,3348 | csrt | Pangandaran |
| | 5 | Polyline ZM | -2,3348 | csrt | Pangandaran |
| | 6 | Polyline ZM | -2,181108 | csrt | Cilacap |
| | 7 | Polyline ZM | -2,181108 | csrt | Cilacap |
| | 8 | Polyline ZM | -1,021795 | csrt | Glagah |
| | 9 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 10 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 11 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 12 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 13 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 14 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 15 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 16 | Polyline ZM | -1,731458 | csrt | Palabuhanrat |
| | 17 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 18 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 19 | Polyline ZM | -2,181108 | csrt | Cilacap |
| | 20 | Polyline ZM | -2,00294 | csrt | Pamengpeuk |
| | 21 | Polyline ZM | -2,3348 | csrt | Pangandaran |

Data terestris sudah siap untuk pembuatan DEM.



III. PENGOLAHAN DATA BATIMETRI

Proses ini dilakukan untuk mendapatkan SHP nilai kedalaman yang sudah terkoreksi dari raw

data pemeruman.

1. Melakukan konversi raw data dari .txt menjadi .csv dan melakukan editing/filter terhadap field atribut yang tidak digunakan.

| 2 million angel - D x | 自 秋天天 白 油 一 | the section in | | |
|--|--|-----------------------|--|---|
| for last farmed they been | | | | International States |
| Parts Times Fast North (Tot Darith (Tot) (Tot) (Tot) (Tot) (and Second | The second secon | on the server one | A Designation of the local division of the l | minimum Amer |
| BUSCORT 12-13-41 600 R8 MARTIN FRAMENTING STATE 13, JUNE 10 COMMINSTANCE OF COMMINSTANCE AND | Terral Channel of the office of the | | A contrast in succession in succession | - Z - H+ |
| The second s | and the state of the second state of the secon | and the second second | Alterney Aren 200mm | |
| Windowski za sa na sa | BUSCHER MARKEN HARRING AND HARRING | | Turket Sales | H CAR |
| REPUBLIC TO A SECTION OF A DESCRIPTION O | This is the | Augusted 12 Status 1 | - tan | 4404 |
| 8/15/2017.31.231.46-485 PM.668892 59//522 r613.42//,35.88/0.00//0.00//0.00//0.00//0.00//0.00//0.00// | Provide State Stat | | | |
| 8/15/2017.13:31:48.157 PM,668988 50m,5227613.78m,35:88m,0.00m,0.00m,0.00m,0.00m,0.00m,0.00m,7.00001, <survey=< th=""><th>A1</th><th></th><th></th><th></th></survey=<> | A1 | | | |
| 8/15/2017.12:31:49.749 PM.888684.95m,9237614.13m,35.86m.0.00m,00000000 | And an other same range of | | | |
| 8/15/2017,12:31:51:338 PM,668681 25m,5227614 Alm,36 28m,0.00m,0.00m,0.00m,0.00m,7.00001,<508VP> | see here but burn Dr | d Depth code | Charles and the second s | |
| 8/15/2017,1271:52.929 PM.668677 61m.9227614 92m.36.60m.0.00m.0.00m.0.00m.0.00m.0.00m.7.00002, <survey></survey> | E A/15/1017 LENG AU AMERICAN ADDALLIN | 10.41 7 (00011 | | |
| 8/15/2017 12 31:54.521 PM 668673 99m,9277615 37m,36.88m.0.00m.0.00m,0.00m,0.00m,7.00002, <survey-< th=""><th>ATTITUTET 12-ID AT AMPRESS RESNELLY</th><th>10.472.00801</th><th></th><th></th></survey-<> | ATTITUTET 12-ID AT AMPRESS RESNELLY | 10.472.00801 | | |
| 8/15/1017.12.31.56.121 PM 668670.54n.5277615.83m.37.02m.0.00m.0.00m.0.00m.0.00m.0.00m.0.00002.45.89VY+ | #/10/08/7 12:01:46. 688896.29. 9227031-00 | (5457.09m) | | |
| #7:5-01017 12:33-57 712 PM MARDON TOP: 537 7016 28m 51 52m 0.00m 0.00m 0.00m 0.00m 0.00m 1.00000 +50.00007 | \$ 8/25/2017 12:11:46 MMMRL96 1227811.42 | (5.387.7.08m1 | | |
| 8/15/2017 12-31-50 405 084 658063 82m 5117616 20m 11 48m 0 00m 0 00m 0 00m 0 00m 100001 451890% | B 0/25/2017 12:31.00 AMARABAN BEDRUCK | 10.46 1.00001 | | |
| APECINE 12 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10 | AUDIORT LETINE BREAK R. 4229614.13 | 65.88-1.00863 | | |
| Resident and an advantage methods and an exception of the property of the prop | #42080-123020-0000125-302604-00 | NUM COMPT | | |
| K1370173125232333 PM 600033 400 (\$17617617 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | NUMBER OF STREET, STRE | In a 7.00ml | | |
| 8/15/2017,17:32:54.270 PW(56895)L52n;5227617:58n;37.49n;0.00n;0.00n;0.00n;0.00n;0.00n;0.00n;0.000;7.00005,+508947+ | AUDITATION DATES AND A PROPERTY AND | In an I could | | |
| 0/15/2017 12:32:96.077 PM(868647.39m,9727617.70m,36.05m,0.00m,0.00m,0.00m,0.00m,0.00m,1.00005, 4508977* | alational initial management of allowing an | AT TAX A COMPLETE | | |
| 8/15/2017,12:32:07.020 PM 666643 07m;5227617 89m;38:54m;0.00m;0.00m;0.00m;0.00m;0.00m;1.00000; esceny12>> | although the second of any and | and the operation | | |
| 8/15/2017.1232-09.765 PM.668638-75m,9227617-97m,38:38m,0:00000, | available internet in annual in annual in | Artist Transit | | |
| 8/15/2017.12/32/13.00 PM.668633.98n,5227618.11m,35 17n,0.00m,0.00m,0.00m,0.00m,7.00004, <survey-< th=""><th>AVENUES 12-12-12-11-11 ANALYS AVENUES AVENUES</th><th>12,76 Tommy</th><th></th><th></th></survey-<> | AVENUES 12-12-12-11-11 ANALYS AVENUES AVENUES | 12,76 Tommy | | |
| 8/15/2017.12.32:33.825 PM.668629 18m,9227614.28m,35.13m.0.00m.0.00m.0.00m,0.00m,0.00m,0.00m | ACTIVITY TELEVISIA DESCRIPTION | LEAST COMME | | |
| 8/15/2017 12 33:35:663 PM-668824 82n;3327618 43n; 39 05n;0.00n;0.00n;0.00n;0.00n;0.00n;0.000;1.00004 <9.89/017 | s/lichtly initia meading second in | 18.017.00001 | | |
| 8/15/2017 12:13:17:511 PA 668620 42m 5077614 18m 39:52m 0.00m 0.00m 0.00m 0.00m 2.00m 7.00004 <5.69/17- | ATTACOUT LOAD-ON MANALAN RECORTAN | Salua T.Ophits | | |
| 8/15/2017 12:13:19 351 PM 568516 0km 5327618 73m 39 92m 0.00m 0.00m 0.00m 0.00m 7.00004 <548977- | \$735(200) 12:32:58 (KHKM-75 1222KU7.87 | 58:58 1L00963 | | |
| 8/15/2017 12:32-21 191 PM 568511 6An 92/2018 8An 40 2An 0.00x 0.00x 0.00x 0.00x 0.00x 5.00x 5.00 | a alternation and a second second | 10.17 T-00064 | | |
| WITH THE REPORT OF A DATA THE REPORT OF A DATA THE REPORT OF A DATA TO THE REPORT OF A DATA T | A/13/2017 12:11:14 HARMELS BIO/NALIS | 80.11.7.30814 | | |
| | a/11/10/7 12/718 Addite AC 12/27/44-49 | 19-83-7-00964 | | |
| April 2011 P. 12: 32: 24 and P. M. BORRELS MITTAL PROCESSING CONTRACT AND A CO | 4/15/2017 12:12:58 66880-49 522W10.18 | 10.51 T 00064 | | |
| REPORT TO A T | AUDURIT LEADER SORGE IN SIZARD.O | 38,87 3.00864 | | |
| 8/15/2017.01:08:25:936 PM.670044.12/v/92/17496.74/v,4.33/v,0.00/v.0.00/v,0.00/v,0.00/v,1.00006, <survey-< th=""><th>AUDITET TREET MARTERS TRANSLES</th><th>80.81 7 00804</th><th></th><th></th></survey-<> | AUDITET TREET MARTERS TRANSLES | 80.81 7 00804 | | |
| 8/15/2017.01/08/27.233 PM,670042 73n;5227499 A7n;4.44in;0.00n;0.00n;0.00n;0.00n;0.00n;0.000;0.00 | Withinti 194551 Amminist associate | 40.40 T.00001 | | |
| 8/15/2017.01:08:28:329 PM,670041.54m,922/502.19m,4.59m,0.000 | NTECHE 12121 000004 97241151 | ALLS COMPL | | |
| 1/25/2017,01:00:25.823 PM,670039.94m,5217564.52m,4.87m,0.00m,0.00m,0.00m,0.00m,0.00m,0.00m/ | All all and a second second second as | A DA TOMES | | |
| 8/15/2017.01:08:11.111 PM,670038.5An,5727507.67n;4.85n;0.00n;0.00n;0.00n;0.00n;7.00006;508V8V2> | AUTOMOT TRANSPORT ADDRESS OF AUTOMOTION | A AN TOWNED | | |
| 8/15/2017.01:06 32.427 PM.670037 13rr,9227510.39m,4.84m,0.00m.0.00m.0.00m,0.00m,7.00006, <survey-< th=""><th>ACCOUNT ADDRESS STRAL AS BECTRELES</th><th># 35 T 00800</th><th></th><th></th></survey-<> | ACCOUNT ADDRESS STRAL AS BECTRELES | # 35 T 00800 | | |
| 8/15/2017 01-08 33 721 PM 670035 75m 9227513 12m 4 90m 0.00m 0.00m 0.00m 0.00m 0.00m 0.00m 0.00m 0.00m 0.000 statement | AVIATION AND A STREAM AND ADDRESS AND ADDR | Aur County | | |
| 8/15/2017 01-08 15/215 PM 6/00/54 Stin 1277515 8/kn 4 90m 0.00m 0.00m 0.00m 0.00m 0.00m 5/00005 e0/80/275 | APER/2017 INDERIG STREAM SICTION | 6.01 T.OOMS | | |
| ATS OUT OF HER SE STORES AND THE REPORT OF A DEPARTMENT OF A DEPART | A 11/10/07 10:00:02 10:00/114 122/510.00 | 4.84 7.00906 | | |
| Although the state of the state | A/25/2017 LANSO # 070025.75 1022512.10 | 4.5 1.00000 | | |
| A REPORT OF THE ACTION OF THE ACTION OF THE ACTION AND A REPORT AND A | AUX/DUT/LEAKING APPEND OF REPORT. AN | 4.9.7.0000 | | |
| W12120121201200000000000000000000000000 | AVIATET INCOME ATTRACT STOTEMENT | A.E.I. T.CORET | | |
| 8(13/101, 0108-0.28(19), 50021 (20,912)27 19(0, 5 (19), 0 (00), 0 (00), 0 (00), 0 (00), 100000, \$500005 | Arth/28/29/37 12/09/39 67/9031.99 822/521.40 | 4.071.09887 | | |
| 8/15/2017.01:08:41.303 PW(570128.50h);322 P330 IDP(5.30h);0.00h); | CONTRACTOR ADDRESS ADDRESS IN ADDRESS ADDR | Aug 2 count | | |
| #/15/1017.01.08:43.806 PM,670027 ASex,53115.12 90m,5 40m,0.00m,0.00m,0.00m,0.00m,0.00m,C00007,4548VEY+ | INTS (SALLIC) | | | |
| | | Served \$150 | NUMBER OF TAXABLE | the second se |

2. Menggabungkan seluruh .csv pemeruman menjadi gabungan data pemeruman. Kemudian .csv gabungan tersebut dijadikan .shp.

| Add XV Data | × | | | |
|--|---|---|--------|-----|
| A table containing if and Y coordinate data can be a map as a layer. | table to the | A | | |
| SEE5-06092017, K.b.t | | | \sim | |
| Specify the fields for the X, T and Z coordinates: | | | | |
| X Pald: East | | | | |
| YRebt North | | | | |
| Ined Dillown | | | | |
| Coordinate System of Input Coordinates Description | | | | . 9 |
| Projected Coedinate System: Name: IDS, 3144 JUTA Jan, 485 Geographic Coordinate System Name: GCS_WGS_2884 | | | | |
| 0 | | | | |
| Show Details | 68 | | | |
| | Kinctionality | | | |
| Warn me if the resulting layer will have restricted | a contract of the second se | | | |



| ble Of Contents * * | Table | | | | | | | | D× |
|--|----------|------------|-------------|----------|-----------|------------|-----------|---------|----|
| 9043 | 신- 1 | | 0.4 | _ | | | | | |
| # Layers | Titik Pe | rum RAW | | | | | | | × |
| E 2 Titik_Perum_RAW | FID | Shape" | Date | Time | East | North | Ch1 Depth | Code | - |
| | 2393 | 1 Point ZM | 17/08/2017 | 11:42.21 | 649759.7 | 9226003,96 | 1.06 | T.01476 | |
| C C data and constal at add stillaut | 2393 | 3 Point ZM | 17/08/2017 | 11.42.26 | 649746.65 | 9226004.85 | 1.06 | T 01477 | |
| in the data gaits partial project action | 2951 | 5 Point ZM | 17/08/2017 | 14.25:28 | 654524,5 | 9227467,38 | 1,06 | T.02455 | |
| • | 3131 | 5 Point ZM | 17/08/2017 | 15:21:03 | 660386,51 | 9230586,63 | 1.06 | T.02789 | |
| E II gards pantai of raw | 3132 | 2 Point ZM | 17/08/2017 | 15 21 28 | 660483,15 | 9230570,4 | 1,06 | T.02791 | |
| in a gara pana, prom | 3152 | 2 Point ZM | 06/09/2017 | 14:58:34 | 639811,97 | 9228273,33 | 1,09 | T 02837 | |
| • | 3293 | 5 Point ZM | 06/09/2017 | 15:36:02 | 637146,64 | 9231715,44 | 1,09 | T.03062 | |
| 🗏 🗷 Garis pantai 8 dari CSRT yang sudah diisi HAT ses | 3293 | 6 Point ZM | 06/09/2017 | 15:38:03 | 637146,87 | 9231715,28 | 1,09 | T.03062 | |
| , , , | 3293 | 7 Point ZM | 06/09/2017 | 15:36:04 | 637147.1 | 9231715,13 | 1,09 | T.03062 | |
| - | 3293 | 8 Point ZM | 06/09/2017 | 15:36:06 | 637147,32 | 9231714,98 | 1,09 | T.03062 | |
| B S contour co amplitudo | 3293 | 9 Point ZM | 06/09/2017 | 15:36:07 | 637147,54 | 9231714,82 | 1,09 | T.03062 | |
| | 3294 | 0 Point ZM | 06/09/2017 | 15:36:08 | 637147,76 | 9231714,67 | 1,09 | 1.03062 | |
| and the second | 13294 | 1 Point ZM | 06/09/2017 | 15:36:10 | 637147,99 | 9231714,51 | 1.09 | 1 03062 | |
| E Indeks_Paket3_2017 | 3294 | 2 Point ZM | 06/09/2017 | 15 36 11 | 637148,21 | 9231/14,39 | 1.09 | 1.03063 | |
| call other values> | 3294 | 3 Pant 2M | 06/09/2017 | 15.36.12 | 63/148.44 | 9231714,33 | 1,09 | 1.03063 | |
| a survive values. | 3294 | 4 Point ZM | 06/09/2017 | 15 36 13 | 63/148,68 | 9231/14,27 | 1,09 | 1.03063 | |
| Pasut_BIG | 3294 | 5 Point 2M | 06/09/2017 | 15:36.15 | 63/148,91 | 9231/14,21 | 1,09 | 103063 | |
| III Cilacap | - 3294 | 0 POREZM | 06/09/2017 | 15,36,16 | 03/149,15 | 9231/14,10 | 1,09 | 1.03063 | |
| | 13294 | 2 Point 2M | 00/03/2017 | 10.30.17 | 037149,30 | 9231714,1 | 1,09 | 1.03063 | |
| 🖾 Glagan | Harris | 0 Doint 2M | 100/09/2017 | 15.30.20 | 637450.05 | 9231713,90 | 1.00 | T 03063 | |
| 🗇 Palabuhan Ratu | 1329 | t Doint 7M | 060092017 | 15:36:22 | 637150.00 | 0231713.04 | 1.09 | T 03064 | |
| Parmaurance all | 13305 | 2 Dount 7M | 06/09/2017 | 15 36 22 | 837150 35 | 0231713,00 | 1.09 | T 03064 | |
| La Parnayangsan | 3295 | 3 Point 7M | 06/09/2017 | 15:36:25 | 637150 51 | 9231713.89 | 1.09 | T 03064 | |
| Pameungpeuk | 3795 | 4 Point 7M | 06/09/2017 | 15 36 26 | 637150.66 | 9231713.88 | 1.09 | T 03064 | |
| E Pangandaran | 3294 | 5 Point ZM | 06/09/2017 | 15 36 27 | 637150.81 | 9231713.86 | 1.09 | T 03064 | |
| and the second sec | 329 | 6 Point ZM | 06/09/2017 | 15 36 29 | 637150.96 | 9231713.85 | 1.09 | T.03064 | |
| III Citra_Sateint | 329 | 7 Point ZM | 06/09/2017 | 15:36:30 | 637151.12 | 9231713.83 | 1.09 | T.03064 | |
| and the work that a which is | 3295 | 8 Point ZM | 06/09/2017 | 15:36:31 | 637151,24 | 9231713,81 | 1.09 | T.03065 | |
| | 3295 | 9 Point ZM | 06/09/2017 | 15 36 32 | 637151.34 | 9231713.77 | 1.09 | T.03065 | |

Gambar data SHP format alat belum di filter (masih terdapat kedalaman dibawah 1,8 m)

3. Filtering data noise dari data pemeruman. Pada pemeruman draft kapal adalah 1.8 meter, sehingga semua kedalaman kurang dari 2 meter dibuang.

| ale Of Contents * × 요 승 용 원 | Table | | | | | | 0.8 |
|--|--|--|----------------------------------|-------------------------------------|--|--|-----|
| # Layers | Titlk Perum Filter | | | | | | |
| e Ra Tidik_Nerum_Filter | FID Shape* 38519 Point ZM | Date 08/09/2017 | Time 09:53:25 | East 657867,79 | North 9205459.59 | Ch1 Depth Code 2,02 T 04051 | ^ |
| ∃ # Titik_Perum_RAW | 30697 Point ZM 30697 Point ZM | 21/11/2017 21/11/2017 | 09.53.42 03.00.47 03.00.46 | 657826,45 670454,05 670453,91 | 9205430 48 9227305 32 9227307 07 | 2,03 T 04053 2,03 T 24417 2,07 T 24416 | 17 |
| 🗑 data garis pantai pt_edit atribut | 30697 Point ZM 23716 Point ZM | 21/11/2017 17/08/2017 | 03:00:44 11:42:27 | 670453,74 649742,77 | 9227308.78 9226005.18 | 2,09 T 24416 2,1 T 01477 | |
| ■ □ garis_pantai_pt_raw | 38523 Point ZM 32713 Point ZM 38525 Point ZM | 08/09/2017 06/09/2017 08/09/2017 | 09:53:39 15:36:55 09:53:45 | 657834 14 637153 46 657818 77 | 9205435.53 9231713.16 9205425.52 | 2,1 T 04053 2,12 T 03067 2,13 T 04053 | |
| ● III Garis pantai 8 dari CSRT yang sudah diisi HAT ses | 52285 Point ZM 38526 Point ZM | 08/09/2017 08/09/2017 | 15.38.12 09.54.06 | 660580.52 657771.89 | 9206033 3 9205410.63 | 2,13 T 06809 2,16 T 04056 | |
| - R contour co amplitudo | 38521 Point ZM 17442 Point ZM | 08/09/2017 | 09.53:30 | 657856,86 972436,51 | 9227310.48 9205451.26 9146014.95 | 2,10 1,24416 2,17 T 04051 2,17 T 05168 | |
| - | 52284 Point ZM 30697 Point ZM | 08/09/2017 21/11/2017 | 15.38.10 03:00.41 | 660577.27 670453.23 | 9206032,21 9227313,9 | 2,18 T 06809 2,18 T 24416 | |
| Indeks_Paket3_2017 □ <all other="" values=""></all> | 30692 Point ZM 30693 Point ZM | 21/11/2017 | 15 38 13 02 59 42 02 59 56 | 670368.84 670407.3 | 9206034,38 9227374,38 9227375,15 | 2,19 T 06809 2,19 T 24410 2,19 T 24411 | |
| Pasut_BIG | 52276 Point ZM 52287 Point ZM | 08/09/2017 08/09/2017 | 15 37 58 15 38 15 | 050551,19 660586,82 | 9206029.11 9206036.25 | 2,21 T 06807 2,22 T 06809 | |
| 🖾 Glagah | 30697 Point ZM 30697 Point ZM | 21/11/2017 21/11/2017 | 03:00:39 03:00:42 | 670453,06 670453,4 | 9227315.6 | 2,22 T 24416 2,22 T 24416 | |

Gambar data SHP format alat setelah dilakukan filter



4. Langkah berikutnya adalah memisahkan data pemeruman sesuai dengan area pasut yang mempengaruhi data tersebut.



5. Selanjutnya dilakukan koreksi kedalaman terhadap data batimetri dengan memperhitungkan nilai pasut dan LAT.

Kedalaman Fix = Nilai Kedalaman – Nilai Pasut + Nilai LAT.

Elevasi fix = Kedalaman terukur – elevasi pasang surut + LAT

| Ľ | | | | | | | | | | | × 1 | Neualania |
|----|-----------|----------|-----------|------------|-----------|---------|------------|-----|---------|------|---------------|-------------|
| 31 | Date | Time | East | North | Ch1_Depth | Code | Pasut | Jam | H_Pasut | LAT | Kedalaman_Fix | T untuk DEM |
| 3 | 9/10/2017 | 04:35:16 | 757510.72 | 9170126.87 | 10.13 | T.00281 | Pamengpeuk | 04 | 7.28 | 6.00 | 8.91 | / |
| 3 | 9/10/2017 | 04:07:15 | 763461.34 | 9169622.89 | 35.68 | T.00001 | Pamengpeuk | 04 | 7.28 | 6.06 | 34.45 | |
| 31 | 9/10/2017 | 04:07:16 | 763457.56 | 9169624.87 | 34.59 | T.00001 | Pamengpeuk | 04 | 7.28 | 6.06 | 33.37 | |
| 3 | 9/10/2017 | 04:07:17 | 763453.77 | 9169626.86 | 31.62 | T.00001 | Pamengpeuk | 04 | 7.28 | 6.06 | 30.40 | |
| 3 | 9/10/2017 | 04:07:18 | 763450.03 | 9169628.81 | 30.62 | T.00001 | Pamengpeuk | 04 | 7.28 | 6.06 | 29.40 | |
| 2 | 9/10/2017 | 04:07:19 | 763446.80 | 9169630.50 | 30.14 | T.00001 | Pamengpeuk | 04 | 7,28 | 6.06 | 28.92 | |
| з | 9/10/2017 | 04:07:20 | 763443.55 | 9169632.48 | 29.17 | T.00002 | Pamengpeuk | 04 | 7.28 | 6.06 | 27.95 | |
| 3 | 9/10/2017 | 04:07:22 | 763440.20 | 9169635.83 | 28.69 | T.00002 | Pamengpeuk | 04 | 7.28 | 5.06 | 27.47 | |
| 0 | 3/10/2017 | 04:07:23 | 763436.86 | 9169639.16 | 26.16 | T.00002 | Pamengpeuk | 04 | 7.28 | 6.06 | 24.94 | |
| រា | 9/10/2017 | 04:07:24 | 763433.50 | 9169642.51 | 25.99 | T.00002 | Pamengpeuk | 04 | 7.28 | 6.06 | 24.77 | |
| В | 9/10/2017 | 04:07:25 | 763430.17 | 9169645.84 | 24.98 | T.00002 | Pamengpeuk | 64 | 7.28 | 6,06 | 23.76 | |
| 3 | 9/10/2017 | 04:07:27 | 763426.83 | 9169649.17 | 22.57 | T.00003 | Pamengpeuk | 04 | 7.28 | 6.06 | 21.35 | |
| 2 | 9/10/2017 | 04:07:28 | 763473.83 | 9169652.87 | 22.49 | T.00003 | Pameneneuk | 04 | 7.28 | 6.06 | 21.27 | |



- Q Untitled AndMap × File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help 🗋 😹 🖓 🐘 🌐 🖏 🗙 🗠 🔿 🔿 🚸 • 1582,049 a, a, 🕐 🎱 💥 💥 + + (@- 🖹 k 🞯 / 🕮 🛄 👫 🖑 🖁 🗐 🖓 🖉 Drawing* k 🖓 🗐 🗋 • A • 🖄 Snapping • 되불] 🏽 🐨 高田 14 4 💻 Georeferencing * - の回原にたたえる 2 21 iii) -Table Of Contents Re 0 × ~ 5 0 0 B E 🗃 🗐 Layers × Export Data a 🗹 Pe 4 Export: All features Use the same coordinate system as: (a) this layer's source data O the data frame the feature dataset you export the data into (ovly applies if you export to a feature dataset in a geodatabase) Output feature dam: D:_Batmetn\7. SHP Terkoreksi Pasut\PL_Ratu_Koreksi shp E OK Cancel w 00100 c . 675262.963 9173730.098 Meters
- 6. Pembuatan shp pemeruman dari data yang sudah dikoreksi.

Atribut kedalaman data perum terkoreksi:

| ayers | 11 · 12 · 10 22 | 2 @ # | | | | | | | |
|--|-----------------|-------------|------------|-----------|----------|---------|------|-------------|------------|
| 🗟 🕅 data perum terkoreksi gabung | data perum terk | oreksi gabu | ngan SHP | | | | | | |
| | Time | East | North | Ch1_Depth | Code | H_PASUT | LAT | Pasut | Kedalaman_ |
| I I Garis pantai 8 dari CSRT yang | • 10:55:20 AM | 944115,98 | 9143571,09 | 3,27 | On 00004 | 1,52 | 0,23 | Cilacap | 1,98 |
| 115 CT 1 C C C C C C C C C C C C C C C C C | 10.55.21 AM | 944118,21 | 9143570,14 | 3,29 | On 00004 | 1,02 | 0,23 | Cilacap | + 00 |
| - | 10.55.23 AM | 944121,20 | 9143568,82 | 3,27 | 05/00004 | 1.02 | 0,23 | Cilacan | 1,90 |
| 🛙 data garis pantai pt_edit atribu | 10.55-25 AM | 044125.67 | 0143566.03 | 3 17 | Do 00004 | 1.52 | 0.23 | Cilacon | 1.09 |
| | 10.55.26 AM | 944127.88 | 9143585 98 | 3.22 | 0x00004 | 1.52 | 0.23 | Cilacan | 1.93 |
| | 10.55.28 AM | 944130.09 | 9143565.04 | 3.22 | On 00004 | 1.52 | 0.23 | Cilacag | 1.93 |
| D Litik_Perum_Filter | 10:55:29 AM | 944132.29 | 9143564.09 | 3.23 | On 00004 | 1.52 | 0.23 | Cilacap | 194 |
| • | 10.55.30 AM | 944135.3 | 9143563.23 | 3.23 | T.00031 | 1.52 | 0.23 | Cilacap | 1.94 |
| T Title Barriers PAW | 10:55:31 AM | 944138,38 | 9143562,37 | 3,23 | T.00031 | 1,52 | 0,23 | Cilacap | 1,94 |
| LL HOK_PERUM_KAW | 10.55:33 AM | 944141,44 | 9143561,52 | 3,24 | T.00031 | 1,52 | 0,23 | Cilacap | 1,95 |
| | 10:55:34 AM | 944144,51 | 9143560,66 | 3,23 | T.00031 | 1,52 | 0,23 | Cilacap | 1,94 |
| I naris nantai nt raw | 10:55:35 AM | 944147.6 | 9143559,8 | 3,24 | T.00031 | 1,52 | 0,23 | Cilacagi | 1,95 |
| an garapana pran | 10:55:37 AM | 944150,66 | 9143558,95 | 3,21 | T.00031 | 1,52 | 0,23 | Cilacap | 1,92 |
| | 10.55.38 AM | 944153,73 | 9143558 1 | 3,31 | T.00031 | 1,52 | 0,23 | Cilacap | 2,02 |
| 2 contour co amplitudo | 10:55:39 AM | 944156,83 | 9143557,24 | 3,3 | T 00032 | 1,52 | 0,23 | Citacap | 2,01 |
| | 10:55:40 AM | 944160,16 | 9143556,36 | 3,24 | T.00032 | 1,52 | 0,23 | Cilacap | 1,95 |
| | 10:55:42 AM | 944163,48 | 9143555,48 | 3,26 | T.00032 | 1,52 | 0,23 | Cilacap | 1,97 |
| II Indeks_Paket3_2017 | 10:55:43 AM | 944166,83 | 9143554.6 | 3,27 | 1.00032 | 1.52 | 0,23 | Citacap | 1,98 |
| III call other values > | 10.55.44 AM | 944170,15 | 9143553,73 | 3,3 | 1.00032 | 1,52 | 0,23 | Cilacap | 2,01 |
| La son outer vinues> | 10.55.45 AM | 9441/3,4/ | 9143552,85 | 3,34 | T.00032 | 1,52 | 0,23 | Cilacap | 2,05 |
| Pasut_BIG | 10.55.47 AM | 944170,83 | 9143551,97 | 3,34 | 1 00032 | 1.52 | 0,23 | Cilacap | 2,05 |
| Cilacap | 10.00.40 AM | 044100.10 | 9143001,09 | 0,00 | T 00032 | 1,32 | 0,23 | Cilacon | 2,00 |
| The Closek | 10.55.51 AM | 044183,45 | 9143530,21 | 3,33 | T.00033 | 1.02 | 0,23 | Cilacan | 2,04 |
| Giagan | 10-55-52 AM | 044189.82 | 0143648 37 | 3.63 | T 00033 | 1.62 | 0.23 | Olacan | 2.24 |
| 💷 Palabuhan Ratu | 10:55:53 AM | 944193 | 9143547.46 | 3.4 | T 00033 | 1.52 | 0.23 | Cilacan | 2.11 |
| Pamawaposari | 10:55:54 AM | 944196.21 | 9143546.54 | 3.53 | T 00033 | 1.52 | 0.23 | Cilacan | 2.24 |
| - Contraction of States | 10 55 56 AM | 944199.38 | 9143545.63 | 3.36 | T 00033 | 1.52 | 0.23 | Cilacan | 2.07 |
| Pameungpeuk | 10:55:57 AM | 944202.71 | 9143544.67 | 3.36 | T 00033 | 1.52 | 0.23 | Cilacap | 2.07 |
| Pangandaran | 10.55.58 AM | 944205,97 | 9143543,73 | 3,33 | T.00033 | 1,52 | 0,23 | Cilacap | 2.04 |
| Cl City Satelli | 10.56.00 AM | 944209,18 | 9143542,83 | 3.32 | T.00034 | 1.52 | 0,23 | Cilacap | 2.03 |
| E L Citra Saterit | 10.56:01 AM | 944212,41 | 9143541,95 | 3,38 | T.00034 | 1,52 | 0,23 | Cilacap | 2.09 |
| | 10 56 02 AM | 944215,64 | 9143541,06 | 3,35 | T.00034 | 1,52 | 0,23 | Cilacap | 2,06 |
| | e | | | | | | | Section 201 | |

Data batimetri siap untuk dijadikan DEM



IV. PEMBENTUKAN DEM

Proses pembentukan DEM dilakukan menggunakan software Global Mapper. Langkahlangkahnya adalah sebagai berikut :

1. Buka layer GARISPANTAI_PT, TITIKKEDALAMAN PERUM_PT, garis hasil digitasi dari Citra Satelit Resolusi Tinggi dan batas masing-masing area pasut.

Data-data pembentuk DEM berdasarkan area pasut seperti pada gambar dibawah ini:







2. Sebelum melakukan Generate DEM, select layer batas area pasut, kemudian lakukan generate Create Elevation Grid.



Gambar proses generate Create Elevation Grid.

3. Hasil Generate DEM



Gambar diatas adalah hasil generate DEM.

Data sudah siap untuk MSL , LAT dan Kontur Kedalaman.



V. PEMBENTUKAN HAT, MSL, LAT DAN AREA PASUT

Pembentukan HAT. 1.

HAT didapat dari digitasi garis pantai "B" terestris dengan nilai dari elevasi HAT Komputasi, seperti pada gambar dibawah ini:



Pembentukan MSL 2.

T.Seve Course upon

Berikut ini adalah layer MSL hasil dari DEM dan nilainya dari Komputasi Pasut



www.sgtgeomedia.com, Telp/Fax: 021 - 22887612

3. Pembentukan LAT

LAT diambil dari nilai hasil komputasi Pasut yang di cuplik dari DEM, seperti pada gambar berikut , dimana nilai LAT akan menjadi NOL



4. Pembentukan Area Pasut

Area pasut dibentuk dari interval zona antara HAT dengan LAT(belum ter-reshape), seperti pada gambar berikut:





5. LAT, MSL, HAT, dan Area Pasut Hasil Reshape.

Reshape dilakukan untuk area-area yang terskip terestris, dimana hasilnya seperti pada gambar dibawah ini:





VI. PEMBENTUKAN KONTUR KEDALAMAN

1. Pembentukan kontur kedalaman di generate dari DEM dengan menggunakan software globalmapper seperti pada gambar berikut:

| Contour Generation Options | × | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| Contour Options Simplification Tiling Contour Bounds | | | | | | | | |
| Description GENERATED CONTOURS | | | | | | | | |
| Contour Interval | | | | | | | | |
| 5 METERS Only Generate Contour Lines at Specified Height | | | | | | | | |
| ADVANCED Contour Interval Multiplier Minor Contours 10 Major Contours 25 | | | | | | | | |
| Elevation Range (Default is Entire Loaded Range) Generate contours within following range of elevations: | | | | | | | | |
| -80 to 15 METERS V | | | | | | | | |
| Start at Minimum Elevation Instead of at First Interval Multiple Within Specified Range | | | | | | | | |
| X-axis: 20 meters Y-axis: 20 meters | The resolution affects fidelity with which contours are generated. Larger numbers result in less detailed content lines that take up less space. Typically you'll just want to accept the defaults. X-axis: 20 Y-axis: 20 meters Y-axis: | | | | | | | |
| Resampling: Default (Resample if Needed) | | | | | | | | |
| Generate Area Features Colored Based on the Current Elevation Shader in Addition to Contours | | | | | | | | |
| Generate Spot Elevations at Min/Max Elevations | | | | | | | | |
| I Interpolate to Hill Small Gaps in Data □ Append Linit Labels (m' or ft) to Elevation Labels | | | | | | | | |
| Smooth Contour Lines/Areas to Improve Appearance | | | | | | | | |
| ☐ Export Contours Directly to Package Files Rather Than Displaying in the Main Map View. Use with Gridding Option to Allow Contouring of Very Large Areas | | | | | | | | |
| Advanced Options Create Contours Where Elevations Pass Down to Contour Value Rather Than as They Go Down From One (Good for Shoreline Generation) | | | | | | | | |
| V Discard Closed Contour Lines Shorter than 20 meters | | | | | | | | |
| OK Cancel Apply Help | | | | | | | | |

Gambar diatas adalah proses pembentukan kontur kedalaman dengan interval 5 meter dan resolusi 20 meter grid.





Gambar hasil generate kontur dengan interval 5 meter

2. Proses editing kontur kedalaman



Gambar kontur sebelum editing





Gambar kontur sesudah editing

Hasil akhir dari kontur kedalaman setelah dilakukan proses editing adalah, seperti pada gambar dibawah ini





VII. PEMBUATAN TOPOLOGI

1. Sebelum melakukan topologi, disiapkan dahulu gdb topologi untuk semua layer garis pantai seperti pada gambar berikut:

| Name | Туре |
|---------------------------------|-----------------------|
| Barea_Pasut_Belum_Topologi | File Geodatabase Feat |
| Parea_Pasut_Topologi | File Geodatabase Feat |
| 导HAT_Belum_Topologi | File Geodatabase Feat |
| 망HAT_Topologi | File Geodatabase Feat |
| PLAT_belum_topologi | File Geodatabase Feat |
| ⊞LAT_topologi | File Geodatabase Feat |
| ^B MSL_Belum_Topologi | File Geodatabase Feat |
| BMSL Topologi | File Geodatabase Feat |

2. Topologi HAT







3. ADMINISTRASI_AR

| Rule yang digunaka | n adalah Must Not Overl | ap dan Must Not Have Gap |
|--------------------|-------------------------|--------------------------|
|--------------------|-------------------------|--------------------------|

| Footure Class | Pula | Fasture Ch. | |
|-----------------|--------------------|-------------|------------|
| ADMINISTRASI AR | Must Not Overlap | reature Cir | Add Rule |
| ADMINISTRASI_AR | Must Not Have Gaps | | Remove |
| | | | Remove |
| | | | |
| | | | Load Rules |
| | | | Save Rules |
| • | III | • | |
| | | | |
| | | | |

Gambar Rule topologi yang digunakan

Tabel jumlah error



Gambar error topologi



4. Topologi AREALAUT_AR

| La | yer Properties | - | | l | x |
|----|------------------------|--------------------------------------|-------------------|---------------|----|
| | General Source Selecti | ion Display Symbology | / Feature Classes | Rules Errors | |
| | Feature Class | Rule | Feature Class | Description | |
| | AREALAUT_AR | Must Not Overlap Must Not Have Ga | | | |
| | 7 | | | Add Rule | |
| | | | | Remove | |
| | | | | Remove All | |
| | | | | Load Rules | |
| | | | | Save Rules | |
| | | | | | |
| | • | III | 4 | | |
| | | | | | |
| | | | | OK Cancel App | ly |

Gambar Rule topologi yang digunakan



Gambar Error topologi





Gambar Setelah di topologi



5. Topologi SUNGAI_AR

Gambar Error topologi





Gambar Setelah topologi

www.sgtgeomedia.com, Telp/Fax : 021 - 22887612

6. Topologi SUNGAI_LN

| Feature Class | Rule | Feature Class | Theoremation | |
|---------------|--------------------|---------------|--------------|--|
| SUNGALLN. | Must Not Overlap | | | |
| SUNGALLN | Must Not Intersect | | | |
| SUNGALLN | Must Not Have Da | | Add Rullet | |
| | | | Ramove | |
| | | | Damme Al | |
| | | | | |
| | | | 1 | |
| | | | Lond Rules | |
| | | | Save Rules | |
| | | | C81 | |
| | | | | |
| | 10.2 | | | |
| <u>.</u> | | 1.5 | | |

Gambar Rule topologi yang digunakan



Gambar Error topologi



7. Topologi JALAN_LN

| Laye | er Prop | erties | | | | | | | X |
|------|---------|--------------|----------------------|-------------------------|-------------|-----------------|-------|------------|-------|
| G | eneral | Source | Selection | Display | Symbology | Feature Classes | Rules | Errors | |
| | Featu | re Class | Rule | | | Feature Class | D | escription | |
| | JALAN | I_LN | Must Not | t Overlap | | | | | |
| | JALAN | V_LN V_LN | Must Not Must Not | t Intersec t Have Da | t angles | | | Add Rule | |
| | | | | | | | | Remove | |
| | | | | | | | | Remove All | |
| | | | | | | | | | |
| | | | | | | | L | oad Rules | |
| | | | | | | | Si | ave Rules | |
| | | | | | | | | | |
| | | | | | | | | | |
| | • | | | | | 4 | | | |
| | | | | | | | | | |
| | | | | | | | 01/ | | |
| | | | | | | L | OK | Cancel | Apply |

Gambar Rule topologi



Gambar Error Topologi





Gambar Setelah Topologi

VIII. PENYELARASAN DATA

Untuk penyelarasan data pada pekerjaan pembuatan peta garis pantai dilakukan dengan tahapan:

- 1. Edit atribut
- 2. Edge Matching
- 1. Proses Edit Atribut

Edit atribut dilakukan dengan mengisi database pada layer tertentu, seperti batas administrasi, sungai, dan sebagainya. Dengan tahapan sebagai berikut:



| gebbs - farmatalities | 100 | The second strength in the second | | | | | · · · · |
|----------------------------|-------------------------------|---|--------------------------|-------------------|-----------------------|--------------------|---|
| File Edd View Bookvarks | Intel Selection | Grephiceting Cuthering | Ministrus Help | | | | |
| 100900 | | 148.000 - 26 | | ala Pien Person + | | in the | 10 - Count |
| 8800 ## ** | - III- III - A | 0 B II A 6 5 | E E: 0000 | () (# 1) = H 🖬 | - Con a Reitwat | 116.4 | · F F Pil RepeTet - 2 |
| Marth - All A - De | 17471 0 | A 10 10 10 10 10 10 10 | 125-125-12-12 | INCOME NO. | -Chornel Miner at \$1 | t-tomme | |
| THEAR CA CONTAINING | Table | | | 0. | | and the second | |
| 12008.21 | 11+ B+ I | × 0.06 | | | A | Contraction of the | Crerger Pursee |
| a Ci Lagera | No. of Access | in and | | × 1. | | | 1 |
| = 2 hite Waysh hite with | Metadata 1 | Hode (#15 Kekmehan/Dese | Hode PUBLICIarabara/Desa | Rede BFS 8 + | | | 1 |
| Kelas Estas | - | | | | | | |
| - Gatas Kaloquatery Kata | - | | | | | Citeria: | |
| Satas Kampung | H | | | - 31 | | | |
| - mater, Valcariatar, Det | | | | | | | |
| Bater under Entering | | | | | | | |
| Rates Persons Deca | · | | | | | and a | |
| Satas Patairan Infanta | H | | | | | | - and |
| Rates Persion Kalvan | | | | | | Sec. | |
| Batas Pesanan Kezama | 1 | | | | | | |
| Bats: Pasairen Presine | 1 | | | | | | |
| Sates Persian Tentor | | - | | | | 69 | Perturbertes |
| Batas Peratran Tetitor | - | | | | | Nº S | |
| Batas Pessian 268 | - | | | | | the second | <u></u> |
| Satan Previewi | 1 | | | | | | |
| Bathe Testtorial | | | | | | | 1 |
| Batan Zonia Tambahar | 1 | | | | | | V f |
| Lannya | - | | | | | | 1 |
| - 10 | 1 | | | | | | |
| | 1 | | | | | | - Jay #10 |
| | | D. A. AL MILLION, Manufacture | Tislachedi | | | l | |
| | The second second | o o name possible | - Annota | | | 1 | |
| | THE REAL PROPERTY AND INCOME. | | | | | | |
| | | | | | | | 557 |
| 41. E | 1 (1) 1 | 10++ (m) | | | | | 1.1 |
| Denetig= b (1) (2) (2) + A | W Mark | - 0 - 1 | 111 4 - 5 - 2. | 1.1 | | | |
| The second second second | | in the second | and the set | | | | |
| (A) (M) (A) | Q a | WN 67 12 | | | | | 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | 8 | Street Street | | | | | 12/0/007 |

Gambar Database yang masing kosong dari layer administrasi_AR

| C Line, Astronomical - Karbler | | and the set of the local data | and the second se | ar 🖨 🛱 |
|--|--|-------------------------------|---|---|
| Fix DN View Reportation | Instit Telection Geoprocessing Customers Wedness He | ÷ | | No. 11 No. 1 Contractor Contractor |
| 0698-888 | | Tant Canaders | and the | Shapping + (D (B) (C) (ST) |
| 6.6.0.0.000.00 | · (11)- 日 • (1) / 日 二 義己多 (1) (12) | | | a manage a la la Auge Test+ g |
| - 1880 * 1 × 1 × 1 × 1 × 1 平 4 | HISD D.CONTENTS OFFICE | Buttonet Dipoten | | 0.04 |
| Take OF Contracts | Talm | | | there a |
| 10004 | 러·龍·唱動母泰王 | Constant (2) | Typer Putching | same In |
| = 🔐 Layers | Wileyah Automaticati | SHARE | # Runder Alric { | |
| in 😥 Bates Wileya's Adversisie | Hetelale Ende SPS ReiershantDesa Rade 70.00 lie | XDRUM . | Citing [bar] | 9 |
| estas Satas | - | NAPORI . | Class Part | |
| Entre Karrpung | | KOPINI . | ling () The () | 1996 |
| Baloo Kezawatan Dier | 11 | +C008 | (ag)) | |
| Setso Kalunehen/Deise Rates Lieutin/ Monthese | | 11.00 | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | |
| Batas Peranan Desa | - | eta / drive a | and then some some lower some | |
| Bates Permany Interna | | Cartonia - | | 1 m |
| Batso Petantan Kalisapa | | faurt | 14 | |
| Rates Persons Proven | | | | |
| Batao Penanten Teritori | | 1 | | Association |
| Batan Persitan Teritori | | - | | Martine and a second |
| Eatst Persona ZH | | 1 | | |
| Satur Tertinital | - | | | |
| Betai Zone Tamkahar | | | | |
| Laistrya | 5 | | | |
| III Wileyah Administration | | Rost selution free | Contract Chief | |
| II R Mandalana and | e Commenced | | | April . |
| | 44 4 0 + 84 m 41 (Lout of 377 Selected) | | OR Genet | |
| | Wileyah Administrate (Wileyah Edministrate) | - | | () () () () () () () () () () |
| 1 | T. | | | dist. |
| + Limmer in Rosenau | - · · · · · · · · · | | | 1. 24.7 |
| (maing+ h (-) H [1] - A | - 11 di Aval - 11 - 11 - 11 - 11 - 11 - 11 - 11 - | · · · 2 · · · · | | |
| Mumber of fushant selected 1 | and the second | Soundary Contraction | | |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | O | | | TOTAL OF THE AM |
| | | | | 12/8/7817 |

Gambar Pengisian atribut area dari layer Administrasi_AR, seperti nama Desa, Kecamatan, Kabupaten, Provinsi dan juga kode-kode wilayah berdasarkan pengkodean dari Kemendagri



| 0 20 | 3 🖻 🗛 6 | 3 15 / 221 1 | 6 | (+) | 100% - 18 29 | 2 F T | ools Sign Com | men | | |
|------|----------------|------------------|-----|-------------|----------------|----------------|----------------------|-----|--|--|
| | | | | 12.0- | | | CALL STORE ALL STORE | | | |
| 1 | - | | | | | | - | | | |
| | 12539231 | NAMA PROVINSI/ | JUM | LAH | NAMA / JUMLAH | | | | | |
| | KODE | KABUPATEN / KOTA | KAB | KOTA | KECAMATAN | KELURAHAN | DESA | 1 | | |
| | 12.01.40.2003 | | | _ | | | 3 Chinag Teaple | t | | |
| | 12.01.40.2004 | | | 0-0 | | | 4 Situdiem | t | | |
| | 32.0L40.2005 | | | | | | 5 Cissoperg | t | | |
| | 32.01.40.2006 | | | 2 1 | | | 6 Gunngmalaug | t | | |
| | 32.01.40.2007 | | | | | | 7 General Malya | t | | |
| | 32.02 | 2 KAB SUKABUMI | | - | 47 | | .981 | t | | |
| | 32.02.01 | | | - | 1 Pelabakanata | 1 | , | t | | |
| | 12 02 01 1001 | | | | | 1 Pelabakaarmi | | t | | |
| | 32.02.01.3002 | | | | | | 1 Twijong | t | | |
| | 32.02.46.2003 | | | 1 | | | 2 Citepus | t | | |
| | 12.02.01.2004 | | | - | | | 3 Beniwasp | t | | |
| | 12.02.41.2005 | | | | | | 4 Cihadas | t | | |
| | 32.02.01.2006 | | | | | | 5 Principal | t | | |
| | 32.02.01.2007 | | | | | | f Citala | t | | |
| | \$2.02.03.2008 | | | 2 | | | 7 Eitarik | t | | |
| | 33.02.01.3009 | | | | | | \$ Cinsegn | T | | |
| | 52.02.01 2010 | | | | | | 9 Jayant | T | | |
| | 32.02.02 | | | | 3 Supera | ÷ | 1 | t | | |
| | 32.02.02.001 | | | | | | 1 Cididap | t | | |
| | 32.02.02.2002 | | | | | | 2 Lei | Г | | |
| | 32.02.02.2063 | | | \$ - 3 | | | 3 Kertigaya | T | | |
| | 32.07.02.2004 | | | | | | 4 Cilure | T | | |
| | 32.02.02.3005 | | | | | | 5 Cilvanta | T | | |

Gambar tabel perkodean batas administrasi



Gambar Database yang telah dimasukan ke field-field, sebagai informasi dari layer Administrasi_AR



| Of Conterns. | Table | | | | | | | | | | 10.8 | 1 10000 N |
|---------------------------------|-------------|---|-------|----------------------|----------|-------------------|----------|--------|------------|------------|------|---|
| 04:3 | 11- B- | | | | | | | | | | | - Desider |
| Lapers | Watyon June | An address - | | | | | | | | | | 1 |
| 2 Later Wingsh Schmitter | T WALKE | T WALKING | WARE: | WALTERS | I NAADER | DADAPH | VEALER | TIPALM | BAR Longs | HAVE ATES | | |
| Kein Retai | | NELAMATAG SURACE | | CARGESTER BUSINESS | | JOORS, EMANT | 100000 | | 6.1254074 | 6.308621 | | |
| - Batan Kabupatan Kota | - | NECAMATAN CLOGRAMS | | RADUFATES LEDAK | - | BANTEN | | 1 | 0.159271 | 6.801123 | | |
| Ratas Katrigariya | | RECRIMITARI ORANAR | | KABUPATES SIRABUSI | | ANNA BARAT | | 1 | 8 11 1284 | 0.000364 | 14 | r |
| - Naturi Kanamatan Diri | | RECAMATAN CERLOR | | CARDANTER SUCCESSION | | JAMAR BARAT | | | 0.048675 | 8 200291 | | |
| - Autor Kaluratoris Clark | | RECAMATAN RELADURAHINATU | | KABURATEN SUKABURI | | JAWA BARAT | | 1 | 0.0111082 | 0.000001 | | |
| - and or a state of the | | RECAMATAR PELABUHARPATU | | KARAPATES BURABURI | | JANKA BARAT | | | 8.145423 | 0.Scottine | | |
| Datab Landab Kompinat | | RECAMATAN DEMAS | | KARGFATER SPEAKURF | | ANDA BARAT | | | 0.024913 | 0.002425 | | |
| astac Processi CACE | | RECAMATAR BAYAR | | KABUPATES LEBAK | | BAITTEN | | | 0.854/67. | 0.308857 | | |
| Bates Pererer Interna | | RECAMOTOR CROKER | | KAROPATES RUKABURI | | JAVAN, BARAT | | 1 | 0.055747 | 0.080% | | |
| Estar Peteran Odwart | | RECAMATAN CEMAS | | CADURATES SUSABURS | | JAWA BARAT | | 1 | 8.36967 | 6.9025/T | | 200 |
| Bates Passings Kecami | 1 | NETAMATAN CRACAP | | KABURATEN BUKABURI | | JANIA BABAT | | 1.1 | 0.0620311 | 0.208089 | | |
| Batas Pasanen Provins | 4 | RECAMATAN CROLDN | | AND PATES BUGABORS | _ | JOAN BARAT | | | 1 010108 | - C | | |
| Batas Persiver Textern | - | KELAMATAN SINDANGBARANG | | KABNFATEN ERADUR | | JAVIA BARAT | | | 0.145423 | 6.801081.8 | | Telecenes |
| Eatai Pessivan Tenteci | | RECAMATAN SREAMOSARANO | | KABNRATES DAAGUR | - | JANNA BARAT | | | 8,01678 | 0.308096 | | |
| Bates Pession 251 | 4 | RECAMATIAN RECARCHAIRMENTY | _ | KAREPATEN SIRABITIY | - | JAWAR BARAT | | | 8.T22308 | 6.203639 | | 2000000 |
| Rates Pressnat | 4 | RELAMATAR CISCLON | | RADGRATER SURABURI | - | JAVAA DARAT | | | 0.091589 | 0.906385 | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Rates Testimitel | H | PECAMATAN SMPERAN | _ | KABUPATEN SUKABURI | | Janua Balitat | | 1.1 | 0.010813 | 0.08081 | | 1922 22 |
| Solar Personal | H | RECAMATAIN DE DISPANIS | _ | RABERSTER LEBAR | - | BATTEN | | | 0.122167 | 0.002364 | | 1 6 |
| BRUE LOUIS TATESTAT | H | RECAMATAIN SHITESAR | | AADVEATES SUSABURI | - | JAVER DARAT | - | | 0.114007 | 0.08085 | | A |
| Cameya | H | INCLAMATOR DENGS | | SABUTATES SUSABURI | | JOURN BOASAT | <u> </u> | - | 0.202989 | 6.002575 | | |
| | H | RELAMATING CROKAR | | KARDPATER SUCARDIO | + | JAVYOR BARAT | | | . 5.075687 | 6.8081/3 | | |
| New York, and the second second | | INCLAMATAN CEMAD | _ | RADSPATER SURADURE | | January Directory | | | 0.000190 | 0 | | Caller . |
| | - | DOUBLE STATE TO BE AND ADDRESS OF STATE | | | | | | | 0.228681 | 5.801178 | | Conception in the second se |

Gambar Database yang telah dimasukan ke field-field, sebagai informasi dari layer Administrasi_AR

Setelah porses pengeditan atribut selesai dilakukan tahapan edgematching dengan tahapan seperti berikut:

2. Proses Edgematching

Untuk menghasilkan data seamless, kita harus menyambungkan atau melakukan edgemacthing objek-objek dari layer tertentu antar sheet. Misal pada layer Jalan, objek jalan di NLP 1109-3223 harus satu segmen dengan objek jalan di NLP 1209-1114.



Gambar Tahapan Edgematching objek jalan NLP 1109-3223 dan NLP1209-1114





Gambar Menggabungkan objek sehingga menjadikan satu segmen



Gambar Menggabungkan objek sehingga menjadikan satu segmen antar NLP





Gambar Setelah dilakukan Edgematching disetiap NLP keseluruhan



Gambar Edge matching objek Sungai NLP 1109-3223 dan NLP1209-1114





Gambar Menggabungkan objek sehingga menjadikan satu segmen



Gambar Menggabungkan objek sehingga menjadikan satu segmen antar NLP





Gambar Setelah dilakukan Edgematching disetiap NLP keseluruhan

IX. PEMBUATAN METADATA



1. Setting Format metadata sesuai dengan format Metadata adala ISO 19139

Gambar setting format metadata



2. Pilih feature class yang akan diisi metadata, pilih Description kemudian edit



3. Isikan kolom sesuai dengan daftar isian yang telah diberikan, setelah selesai mengisi klik save

| SARISPANTALLN | |
|---|---|
| Transformed | |
| | M Debrie 💋 Spoten. |
| lege . | |
| elle mier sunne hotograf mespuel curitsPANTAL | CA GARGERANDALET, TURAEGALAANAPERUALET |
| and the second second | |
| | |
| | 1 2 2 3 3 6 n n |
| B J U K K S II F F E breast herson der Burve Gess Parte Tate leggenen 2015 melbile provek Survei Gess Parter Parte | 第一連 第一通 通 一通 一通 中 中 un 2017 - Cies CR&T Johne 2015, Pees RBI Tahun 2013, Pees débait dangan ting ve SFR1 de Bastan Monntes Georgeosiel Tahun C3 yang dilataan akar pihat kadige yadu IPT - Saman Georgeosel Tarpadu |
| R I U U A' a' E II V E Same besorder der Korve Same Parte Parte Ingener 2016 melska projek Samer Garle Parte Parte Parte | 第一番 単 (古) (古) (古) (中市 中 ur 2017: Cise CRET labor 2015, Pen GBI Tahun 2013, Pen décar bergen bisyn SPERt & Bortin Morrison Georgensell Tahun C3 yang dilakaanakan cisé pihak kelipa yadu IPT. Seramo Georgensell Terpedy |

Gambar isian metadata



4. Export hasil isian metadata ke dalam format .xml



Gambar export format .xml

X. PENYAJIAN KARTOGRAFIS

Dari semua tahapan kegiatan yang berlangsung, penyajiaan kartografis adalah muara dari semua kegiatan. Tahapan yang ada pada kegiatan ini kami bagi menjadi empat bagian diantaranya:

1. Folderisasi dan proses konversi .gdb ke .shp

Pada tahapan ini akan dijelaskan hirarki folderisasi penyimpanan data .gdb dan .shp. Di bawah ini adalah gambar hirarki folderisasi dari folder utama "Survei Garis Pantai Paket 3" hingga sub folder terdalam "Penyajian Kartografis Lembar Lukis Garis Pantai".



| And and an other than the state of the second state of the | | Wash stored a Different Range States States Total Terrory | TAL PROVIDENT | THE R. LEWIS CO., LANSING MICH. |
|---|--|---|---|---|
| The bit the is beginning between tradet the $\Phi_{\rm eff}=0.01$, where $\Phi_{\rm eff}=0.01$, | $\mathcal{L} \otimes \mathcal{L} \otimes (0, \frac{1}{2} + \frac{1}{2}) \otimes \frac{1}{2}$ | He las ver la Granomia Crimina 6 12 • 1 • 1 • 1 • 1 • 1 • 0 • 10 0 · 0 • 0 • 1 • 1 • 1 • 1 • 1 • 0 • 10 0 · 0 • 0 • 1 • 10 | Windows Her D T D D=) gefs tertar Line | (1, 1, 0, 0, + + (0, 1)))) (1, 1, 0, 0, 0, + + (0, 1)))) |
| Chargine P.S. | Contente (Faculty Description) | | | la |
| Eventse indexersi bake drive Eventse indexersi bake drive Eventse indexersi bake drive Eventse | Here | Source of the second seco | | |
| Feideroeteched | | Pli Pile Geodeliebese Tealiver Cites () (selected | _ | |
| | | | 11 N 15 P | |

Gambar Perbandingan antara folder .shp dan .gdb

Langkah selanjutnya adalah konversi data dari .gdb menjadi .shp dengan cara pilih data .gdb yang ingin dikonversi kemudian select all jika ingin mengkonversi data secara keseluruhan kemudian klik kanan -> export -> to shape file.



Gambar Konversi data .gdb to .shp

Pilih folder yang telah disiapkan untuk menyimpan data hasil export dari .gdb





Gambar Pilih folder untuk menyimpan data hasil export

Kemudian tunggu beberapa saat proses konversi data dengan melihat notifikasi yang ada di layar.



Gambar Proses load konversi data .gdb to .shp

Berikut ini adalah folderisasi data .gdb dan data .shp





Gambar Folderisasi Data .gdb



Gambar Folderisasi Data .shp



2. Proses Pengolahan Anotasi

Anotasi adalah tahap dilakukannya pemberian nama atau catatan terhadap berbagai objek yang ada pada peta, misalnya nama sungai, nama kota, nama gunung, nama daerah dan sebagainya. Pada tahapan ini akan dibahas bagaimana langkah-langkah membuat anotasi pada peta yang akan kita buat. Langkah pertama pilih layer yang akan dibuatkan anotasinya kemudian klik kanan pilih *"Convert Label to Annotaton"*.



Gambar Konversi Label Menjadi Annotasi

Selanjutnya pilih field yang akan dijadikan anotasi dan lokasi penyimpanan yang telah dibuatkan.



Gambar Pilih Lokasi Penyimpanan Anotasi



Tunggu beberapa saat sampai notifikasi dilayar menghilang



Gambar Notifikasi Proses Pembuatan Anotasi



Hasil Anotasi dari beberapa layer yang sudah dikonversi dari label

Gambar Hasil konversi data menjadi Anotasi



Contoh salah satu anotasi yang sudah di tampilkan di layout



Gambar Contoh Annotasi

Berikut ini adalah hasil anotasi yang telah dimasukan ke dalam geodatabase



Gambar Data Annotasi di dalam .GDB



3. Penyajian Kartografis

Pada tahapan ini, kita akan menentukan isi dari layout peta yang akan kita buat. Mulai dari muka peta, tepi peta, legenda dan lain-lain.



Gambar Muka Peta



Gambar Tepi Peta



www.sgtgeomedia.com, Telp/Fax : 021 - 22887612



Gambar Overlay Data



Gambar Diagram Lokasi



Dicetak dan diterbitkan oleh :



BADAN INFORMASI GEOSPASIAL JL. RAYAJAKARTA-BOGOR KM 46 CIBINONG - 16911 Telp. (021) 8753155, Fax. (021) 87916647

email: info@big.go.id P.O. BOX 46/CBI - CIBINONG



PT. Sarana Geospasial Terpadu

RUKO CIBUBUR COUNTRY BLOK RFPS No. 70 CIKEAS - JAWA BARAT Telp : 021-22887612 Fax: 021-22887612 www.sgtgeomedia.com - Email: sgtinfo@sgt-indonesia.com

O Hak cipia di Indungi oleh Undang- Undang Republik Indonesia

Gambar Intansi Penerbit atau Pembuat Peta

KETERANGAN

| KANTOR PEMERIN | ITAHAN | PERAIRAN | |
|----------------|-----------------------------------|----------------|---|
| 4 | Gubernur, Walkota, Bupafi, | STREET | Area Pasut |
| 304 | Camat, Desa, Lurah | _ | Dermana |
| | | I | Dennaga |
| BATAS ADMINIST | RASI |) | Penahan ombak |
| | Batas Negara | . | Pelabuhan : Samudera |
| <u> </u> | Batas Provinsi | | |
| | Batas Kabupaten / Kota | t) | Antar Pulau |
| | Batas Kecamatan | (上) | Nelayan |
| | Batas Desa | -2 | Menara Suar |
| GARIS PANTAL | | - | 1.0000000000000000000000000000000000000 |
| • | Titik a (pengukuran garis pantai) | 9 | Pelampung Suar |
| | Titik b (pengukuran garis pantai) | | |
| | Titik c (pengukuran garis pantai) | 4 I I 4 4 I | Pelampung |
| | Titik d (pengukuran garis pantai) | | |
| | | | |

Garis pantai (hasil deliniasi Citra Satelit) Garis surut terendah (kontur nol kedalaman)

Garis pantai tinggi muka air laut rata-rata

Garis pasang tertinggi

Gambar Legenda Peta



| Telah diperiksa oleh : | Telah disahkan oleh : | | | | |
|--|--|--|--|--|--|
| Tim Supervisi | Kepala Bidang | | | | |
| Nama : Lufti Rangga Saputra, S.T. Tanggal : | Nama : Ir. Yosef Dwi Sigit Purnomo, M.Si. Tanggal : | | | | |

Gambar Keterangan Pemeriksaan dan Pengesahan

| Titik Kontrol GNSS (B | ench Mark) |
|-----------------------|-----------------------|
| Nama Titik Kontrol | : BM 20 |
| Koordinat Bujur | : 6° 57' 3.864" LS |
| Koordinat Lintang | : 106° 14' 35.622" BT |

Gambar Titik Kontrol

| Posisi Palem Pasut | |
|--------------------|------------------------------------|
| Nama Palem | : Stasiun Pasut BIG Palabuhan Ratu |
| Koordinat Bujur | : 6° 59' 16.322" S |
| Koordinat Lintang | : 106° 32' 33.883" E |

Gambar Keterangan Posisi Palem Pasut yang digunakan



Batas administrasi di peta adalah batas sementara dan tidak dapat dipergunakan sebagai referensi resmi

Gambar Pembagian Daerah Administrasi



www.sgtgeomedia.com, Telp/Fax: 021-22887612







Jika terdapat kelainan dalam peta ini harap memberitahu kepada BADAN INFORMASI GEOSPASIAL

Gambar Skala





Gambar Layout Peta Keseluruhan

