

STEP BY STEP APPROACH TO ACCESS NEPTUNE SIESMIC DATA FROM IRIS

The Links I use to create the plots

(a) I use the builder to create the plots (link below)

Link: <http://www.iris.edu/ws/timeseries/builder>

Information of Neptune



Network: NV

Stations (currently available): KEMF, NC27 , NC89 , NCBC and NCHR

- Following plots will show a screen shot of the builder screen I developed for each Neptune station that shows the October 21-22 event.
- I usually follow the low frequency (L) channels because they show all data (military screening does not happen in low frequency channels)
- I also follow “Z” for the vertical movements. You may also wish to view E and N data as well.

Station KEMF

- (i) **Builder screen shot:** Note the selections in the text box. The link to the plot is created for you and all you need to do is to click on the link to get the plot



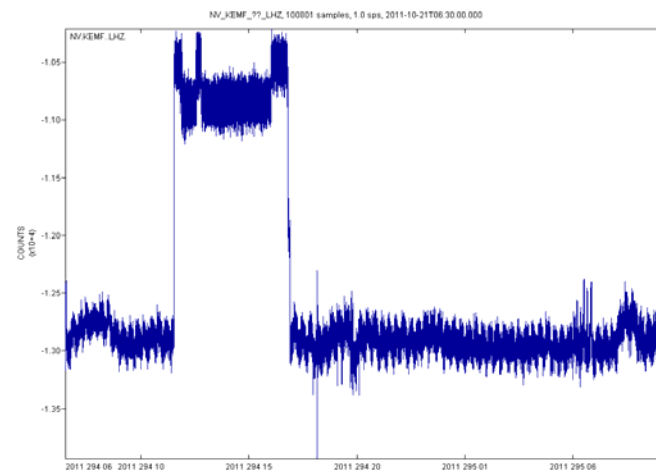
IRIS Timeseries Webservice URL Builder

Home » IRIS DMC Web Services » Timeseries » URL Builder

Use this form to build a URL to the Timeseries web service. Notice that as you edit the form, the link is automatically updated.



Network: <input type="text" value="NV"/>	Remove Mean: <input type="checkbox"/>
Station: <input type="text" value="KEMF"/>	Low-Pass Filter: <input type="text" value="1.0"/>
Location: <input type="text"/>	High-Pass Filter: <input type="text" value="10.0"/>
Channel: <input type="text" value="LHZ"/>	Band-Pass Filter: <input type="text" value="0.01-1.0"/>
Start Time: <input type="text" value="2011-10-21T06:30:00"/>	Differentiate: <input type="checkbox"/>
End Time: <input type="text" value="2011-10-22T10:30:00"/>	Integrate: <input type="checkbox"/>
Auto Scale: <input type="checkbox"/>	Decimate: <input type="text" value="2.0"/> Samples Per Second
Scale: <input type="text" value="2.0"/>	Plot Dimensions: <input type="checkbox"/> w: <input type="text" value="1000"/> X h: <input type="text" value="700"/>
Div-Scale: <input type="text" value="2.0"/>	Anti Alias Plot: <input type="checkbox"/>
Deconvolve: <input type="checkbox"/>	Audio Dynamic Range Compression: <input type="checkbox"/>
Frequency Limits: <input type="text" value="0.0033-0.004-0.05-0.06"/>	Audio Sample Rate: <input type="text" value="16000"/> Samples Per Second
Units: <input type="text" value="DEF"/>	Output: <input type="text" value="plot"/>
	Reference: <input type="text" value="direct"/>

Click the link:
<http://www.iris.edu/ws/timeseries/query?net=NV&sta=KEMF&loc=--&cha=LHZ&start=2011-10-21T06.30.00&end=2011-10-22T10.30.00&output=plot&ref=direct>



Station NC27

Builder screen shot:

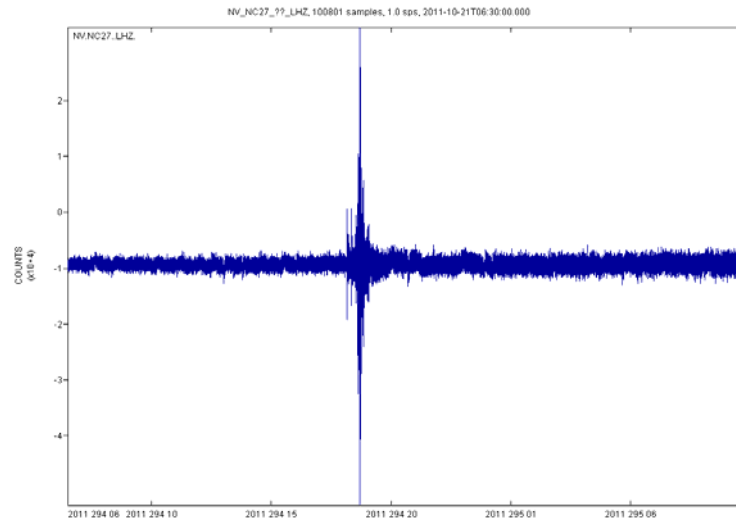
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Use this form to build a URL to the Timeseries web service. Notice that as you edit the form, the link is automatically updated.



Network:	<input type="text" value="NV"/>	Remove Mean:	<input type="checkbox"/>
Station:	<input type="text" value="NC27"/>	Low-Pass Filter:	<input type="checkbox"/> 1.0
Location:	<input type="text"/>	High-Pass Filter:	<input type="checkbox"/> 10.0
Channel:	<input type="text" value="LHZ"/>	Band-Pass Filter:	<input type="checkbox"/> 0.01-1.0
Start Time:	<input type="text" value="2011-10-21T06:30:00"/>	Differentiate:	<input type="checkbox"/>
End Time:	<input type="text" value="2011-10-22T10:30:00"/>	Integrate:	<input type="checkbox"/>
Auto Scale:	<input type="checkbox"/>	Decimate:	<input type="checkbox"/> 2.0 Samples Per Second
Scale:	<input type="checkbox"/> 2.0	Plot Dimensions:	<input type="checkbox"/> w:1000 X h:700
Div-Scale:	<input type="checkbox"/> 2.0	Anti Alias Plot:	<input type="checkbox"/>
Deconvolve:	<input type="checkbox"/>	Audio Dynamic Range Compression:	<input type="checkbox"/>
Frequency Limits:	<input type="text" value="0.0033-0.004-0.05-0.06"/>	Audio Sample Rate:	<input type="checkbox"/> 16000 Samples Per Second
Units:	<input type="text" value="DEF"/>	Output:	<input type="text" value="plot"/>
		Reference:	<input type="text" value="direct"/>

[Click the link:](http://www.iris.edu/ws/timeseries/query?net=NV&sta=NC27&loc=--&cha=LHZ&start=2011-10-21T06:30:00&end=2011-10-22T10:30:00&output=plot&ref=direct)
<http://www.iris.edu/ws/timeseries/query?net=NV&sta=NC27&loc=--&cha=LHZ&start=2011-10-21T06:30:00&end=2011-10-22T10:30:00&output=plot&ref=direct>



Station NC89

Builder screen shot:



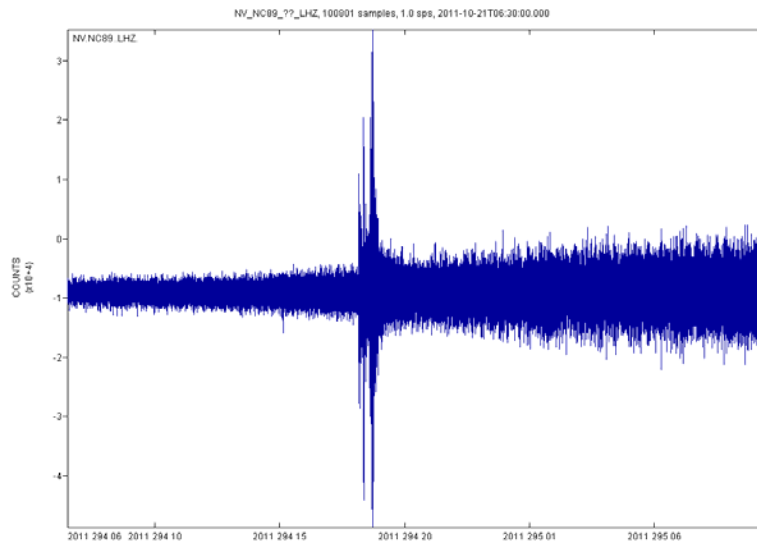
IRIS Timeseries Webservice URL Builder

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Use this form to build a URL to the Timeseries web service. Notice that as you edit the form, the link is automatically updated.



Network:	<input type="text" value="NV"/>	Remove Mean:	<input type="checkbox"/>
Station:	<input type="text" value="NC89"/>	Low-Pass Filter:	<input type="text" value="1.0"/>
Location:	<input type="text"/>	High-Pass Filter:	<input type="text" value="10.0"/>
Channel:	<input type="text" value="LHZ"/>	Band-Pass Filter:	<input type="text" value="0.01-1.0"/>
Start Time:	<input type="text" value="2011-10-21T06:30:00"/>	Differentiate:	<input type="checkbox"/>
End Time:	<input type="text" value="2011-10-22T10:30:00"/>	Integrate:	<input type="checkbox"/>
Auto Scale:	<input type="checkbox"/>	Decimate:	<input type="text" value="2.0"/> Samples Per Second
Scale:	<input type="text" value="2.0"/>	Plot Dimensions:	<input type="text" value="w:1000"/> X <input type="text" value="h:700"/>
Div-Scale:	<input type="text" value="2.0"/>	Anti Alias Plot:	<input type="checkbox"/>
Deconvolve:	<input type="checkbox"/>	Audio Dynamic Range Compression:	<input type="checkbox"/>
Frequency Limits:	<input type="text" value="0.0033-0.004-0.05-0.06"/>	Audio Sample Rate:	<input type="text" value="16000"/> Samples Per Second
Units:	<input type="text" value="DEF"/>	Output:	<input type="text" value="plot"/>
		Reference:	<input type="text" value="direct"/>

[Click the link](http://www.iris.edu/ws/timeseries/query?net=NV&sta=NC89&loc=-&cha=LHZ&start=2011-10-21T06.30.00&end=2011-10-22T10.30.00&output=plot&ref=direct)
<http://www.iris.edu/ws/timeseries/query?net=NV&sta=NC89&loc=-&cha=LHZ&start=2011-10-21T06.30.00&end=2011-10-22T10.30.00&output=plot&ref=direct>



Station NC89

Builder screen shot:

IRIS  

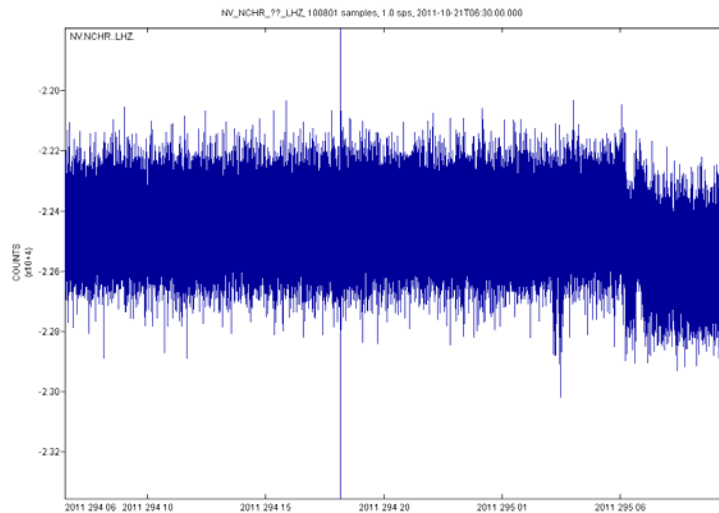
IRIS Timeseries Webservice URL Builder

Home » IRIS DMC Web Services » Timeseries » URL Builder

Use this form to build a URL to the Timeseries web service. Notice that as you edit the form, the link is automatically updated.

Network:	<input type="text" value="NV"/>	Remove Mean:	<input type="checkbox"/>
Station:	<input type="text" value="NCHR"/>	Low-Pass Filter:	<input type="checkbox"/> 1.0
Location:	<input type="text"/>	High-Pass Filter:	<input type="checkbox"/> 10.0
Channel:	<input type="text" value="LHZ"/>	Band-Pass Filter:	<input type="checkbox"/> 0.01-1.0
Start Time:	<input type="text" value="2011-10-21T06:30:00"/>	Differentiate:	<input type="checkbox"/>
End Time:	<input type="text" value="2011-10-22T10:30:00"/>	Integrate:	<input type="checkbox"/>
Auto Scale:	<input type="checkbox"/>	Decimate:	<input type="checkbox"/> 2.0 Samples Per Second
Scale:	<input type="checkbox"/> 2.0	Plot Dimensions:	<input type="checkbox"/> w:1000 X h:700
Div-Scale:	<input type="checkbox"/> 2.0	Anti Alias Plot:	<input type="checkbox"/>
Deconvolve:	<input type="checkbox"/>	Audio Dynamic Range Compression:	<input type="checkbox"/>
Frequency Limits:	<input type="checkbox"/> 0.0033-0.004-0.05-0.06	Audio Sample Rate:	<input type="checkbox"/> 16000 Samples Per Second
Units:	<input type="checkbox"/> DEF	Output:	<input type="text" value="plot"/>
		Reference:	<input type="text" value="direct"/>

Click the link:
<http://www.iris.edu/ws/timeseries/query?net=NV&sta=NCHR&loc=---&cha=LHZ&start=2011-10-21T06.30.00&end=2011-10-22T10.30.00&output=plot&ref=direct>



(b) Also use the following link to get the Neptune Canada station description, information about other channels available and, to explore more.

Link: <http://www.iris.edu/servlet/quackquery/budFileSelector.do?file=NC27.NV..HHZ.2011.299&schema=BUD>

To access Neptune Data

Network: NV

Stations (currently available) : KEMF, NC27 , NC89 , NCBC and NCHR

This is accessible via the IRIS link listed under the “connected data sets” , in the Ocean 2.0 data search.

The screenshot displays the IRIS data browser interface. On the left, a vertical list of station identifiers (AC through HU) is shown, with 'NC27' selected. The main content area is divided into several sections:

- Measurements:** A table listing various measurement types and their availability dates.

Measurement	Avail. Date Range
Daily Signal RMS	2011.032 to 2011.297
Daily Signal Mean	2011.032 to 2011.297
Daily Percent Availability	2011.030 to 2011.298
Number of Gaps Per Day	2011.030 to 2011.298
Number of Overlaps Per Day	2011.030 to 2011.298
Overall timing signal quality	2011.031 to 2011.298
Max Overlap	2011.030 to 2011.298
Max Gap	2011.030 to 2011.298
ISI: Percent above High Noise Model	No Measurements Available
NEIC PDF PLOT	2011.032 to 2011.296
STA/JTA PLOT	2011.032 to 2011.297
- Display Data:** Metadata for the selected file 'NC27.NV.HHZ.2011.299', including filename, size (9,683,968 bytes), date (2011-10-26), and modification date (2011.299 21:08:54). It also provides links for displaying the first mmsSEED header, plotting selected time series data, and webcorder of selected time series data.
- Figure:** A spectral plot titled 'NV NC27 - HHZ - YEARLY 2011.001 - 2011.360'. The y-axis is 'Power (10*log10(μsec^-4sec))' and the x-axis is 'Frequency (Hz)'. The plot shows a complex spectrum with multiple peaks, overlaid with a model fit.
- Online Data:** A table listing 19 data files with their sizes and collection systems.

Data Day	file size (bytes)	Collection System
2011.299	9,683,968	BUD
2011.298	11,192,832	BUD
2011.297	10,946,560	BUD
2011.296	10,870,784	BUD
2011.295	11,476,992	BUD
2011.294	11,047,424	BUD
2011.293	6,661,632	BUD
2011.292	10,617,856	BUD
2011.291	10,547,712	BUD
2011.290	10,102,784	BUD
2011.289	10,690,048	BUD
2011.288	10,815,488	BUD
2011.287	10,840,576	BUD
2011.286	10,334,720	BUD
2011.285	11,602,944	BUD
2011.284	11,539,968	BUD
2011.283	11,565,568	BUD
2011.280	5,581,824	BUD
2011.263	512	BUD