

DioVISTA Hands-on Seminar Creation of exercise risk

map

ゆ株式会社日立パワーソリューションズ

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Today's Goal: Risk Map

HITACHI Inspire the Next

Flood risk map (inundation depth of 50 cm or more) Maximum inundation depths with different occurrence probabilities are superimposed



practice



1. Launch and map operation

- 2. Getting used to the operation: Recreating the 2004 Fukui flood
- 3. Practice: Analysis of the Tsurumi River

3

Review lecture material Streethe Next



Booting DioVISTA (1)



Booting DioVISTA (2)



Working with Maps (1) HITACHI nspire the Next

• Scrolling

– Drag





Working with Maps (2) HITACHI nspire the Next

- Zoom in/out
 - Scroll the wheel



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Working with Maps (3) HITACHI

- Gaze up and down
 - Click the
 button shown
 on the right

If you want to perform the same operation with only the mouse





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Working with Maps (4) HITACHI nspire the Next

- Reset Perspective
 - Click the reset button in the figure on the right





Working with Maps (5) HITACHI nspire the Next

• Map selection

- [Display] [Raster Map]
 - Topographic maps
 - GI Map (Standard Map)
 - Map of the Institute of Geography (orthoimage)
 - Map of the Institute of Geography (White Map)



- Map of the Institute of Geography (Elevation map by color)
- Map of the Institute of Geography (light map)

* Maps of the Institute of Geography (GSI) (various types) require an Internet connection. 11

Map Type (1)

Topographic map



GI Map (Standard Map)



Map Type (2)





Map of the Institute of Geography (Ortho image)

Map of the Institute of Geography (Elevation map by color)



Map of the Institute of Geography (White Map)



GI Map (Light color map)



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Working with Maps (6) HITACHI nspire the Next

Terrain selection

- [Display] [Terrain Display]
 - None
 - 50m
 - 25m
 - 10m
 - 5m
 - 1m



If you select terrain data that has not been imported, it will not be displayed.

Working with Maps (7) HITACHI

- Terrain height enhancement
 - Toolbar [Height Enhancement]



5 emphasis



10x emphasis



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practice



- 1. Launch and map operation
- 2. Getting used to the operation: Recreating the 2004 Fukui flood
 - Preparation of embankments and culverts
 - 25m mesh flood calculation
 - Ground clearance editing
- 3. Practice: Analysis of the Tsurumi River

practice



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Where the data is stored^{HITACHI}



Loading KML





Specify the file [.kmz of flood damage caused by heavy rain in Fukui in Heisei 16 on the left bank of the Asuwa River in Fukui City

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Switch between maps HITACHI Inspire the Next



Move to the break point HITACHI nspire the Next



Set the break point (1)



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Set the location of the leve



Set the location of the leve



Set the break point (4)



CSV file created based on the following documents: Fukui Prefecture, Asuwa River Flood Disaster Investigation Countermeasure Study Report, March 17 Yamaguchi, Iwamura, 2004 Accuracy verification of flood simulation by Asuwa River flood case, Proceedings of the Annual Annual Meeting of the Japan Society of Civil Engineers, 2006

25

Set culverts (1)





Set culverts (2)





Set culverts (3)





Set culverts (4)





Set Embankment (1) HITACHI Inspire the Next



Set the embankment (2) TACHI



Set Embankment (3) HITACHI Inspire the Next



practice



- 1. Launch and map operation
- Getting used to the operation: Recreating the 2004 Fukui flood 2.
 - Preparation of embankments and culverts ____
 - 25m mesh flood calculation
 - Ground clearance editing
- 3. Practice: Analysis of the Tsurumi River

Flood Analysis (1)



Flood Analysis (2)



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Flood Analysis (3)


practice



- 1. Launch and map operation
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Save Project



practice



- 1. Launch and map operation
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practice



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Where the data is stored^{HITACHI}



River Data Capture (1)





River Data Capture (2)





It supports cross-section data and distance marker data that conform to the "Guidelines for Creating Periodic River Crossing Data". http://www.mlit.go.jp/river/shishin_guideline/kasen/gis/pdf_docs/juoudan/guideline0805.pdf 49

River Data Capture (3)





River Data Capture (4)





Editing River Data (1)

HITACHI Inspire the Next



Editing River Data (2)





Editing River Data (3)





Ingest river data





In the same way, the Tsurumi River and Yagami River are incorporated.

Setting up river confluence



Setting up river confluence



Setting up river confluence



In the same way, the Tsurumi River and the Yagami River are merged.

Setting the Upstream Flow Rate



flow rate of the Tsurumi and Yagami rivers.

Setting the Downstream Water Bare Meride



Setting the lateral inflow amount the latera



Setting the lateral inflow amount (Mapping the late



Setting the lateral inflow amount (B)



Setting the lateral inflow amount (he lateral inflow amount (he lateral inflow amount (he lateral inflow))



Setting up a drainage basing u







Setting up a drainage basing u









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Setting up a drainage basi



Drainage Area Settings



Drainage Area Settings



practice



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Specify the breakage point the breakage point the blext



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Specify the breakage point 2

Make a levee break point on the left bank first, and then make a break point on the right bank.



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Designate a breakpoint



Designate a breakpoint



Designate a breakage point the



Designate a breakpoint



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practice



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Setting up the project



Setting the Breaking Potentia



Implementation of flood analy



Implementation of flood analy



Calculation result (left batter Next



Calculation result (right bank)



practice



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Preparation of envelope diagrams (CH)



Preparation of envelope diagrams



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Preparation of envelope diagrams (G)



practice



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Preparation of deliverable



Preparation of deliverable



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Preparation of deliverable



practice



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Launching DioVISTA Storn Dire the Next



Launching DioVISTA Storn Dire the Next



Change the map display



Loading data





Loading data





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We will make a color table specified by the Ministry of Land, Infrastructure, Transport and Tourism



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Flood risk map (inundation depth of 50 cm or more) The maximum inundation depth with different occurrence probabilities is superimposed.



Application: Making Comparison Vinter the Next





Compare simulations with different flow scales for the same levee failure scenario

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