GIS Applications in Hydrology and Hydraulics Questionnaire

Name of Application, date, version number:
NHDPlus Append Tool, 3/24/2008, V1.17

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
Append combines individual NHDPlus workspaces to form larger NHDPlus workspaces.
For example, Append may be used to combine NHDPlus HUC8 workspaces into a
project workspace.

Platform/operating system:
Windows XP w/ Service Pack 2; Vista; Microsoft .Net 2.0 Framework (or above)

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus HUC8 workspaces

Data format and compatibility:
ESRI Shapefiles, ESRI Grids, and Microsoft Access

Will the application import and export data files ?
Yes

**Is the application flexible to couple with external programs and user created
executables?**
n/a

**Are system and user documentation available?   Are example applications
available?**
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

**Does the application require prior installation of ESRI software?   If so, which
products?**
Yes - ArcGIS 9.2 (ArcInfo license level), Service Pack 4 or above; ArcGIS Spatial
Analyst Extension

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480

Name of Application, date, version number:
NHDPlus AquaXpos, 4/29/2008, V1.003

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
AquaXpos conducts a geospatial analysis of the NHDPlus stream network to identify potential pesticide use impacts. Based on an initial area of concern and a method for estimating pesticide impact, AquaXpos analyzes the stream network to find places, downstream from potential pesticide use sites, where chemical impact's may exceed a specific level of concern..

Platform/operating system:
Windows XP w/ Service Pack 2; Vista; Microsoft .Net 2.0 Framework (or above)

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus Dataset
NHDPlus Tools Application Data, Version 1

Data format and compatibility:
Microsoft Access

Will the application import and export data files ?
n/a

Is the application flexible to couple with external programs and user created executables?
n/a

Are system and user documentation available?   Are example applications available?
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

Does the application require prior installation of ESRI software?   If so, which products?
No

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480

Name of Application, date, version number:
NHDPlus BasinDelineator, 3/26/2008, V1.008

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
BasinDelineator delineates drainage basins for a user-defined set of basin pourpoints. The pourpoints must be located on the NHDPlus network which is defined as the subset of flowlines with known flow direction (i.e. NHDPlus.NHDFlowline.Flowdir = "With Digitized"). The input pourpoints are specified by a basin identifier, an NHD linear reachcode, and a measure along the reach. BasinDelineator returns a shapefile containing basin polygons.

Platform/operating system:
Windows XP w/ Service Pack 2; Vista; Microsoft .Net 2.0 Framework (or above)

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus Dataset
NHDPlus Tools Application Data, Version 1

Data format and compatibility:
ESRI Shapefiles, ESRI Grids, and Microsoft Access

Will the application import and export data files ?
n/a

Is the application flexible to couple with external programs and user created executables?
n/a

Are system and user documentation available?   Are example applications available?
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

Does the application require prior installation of ESRI software?   If so, which products?
Yes - ArcGIS 9.2 (ArcInfo license level), Service Pack 4 or above; ArcGIS Spatial Analyst Extension

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480

Name of Application, date, version number:
NHDPlus Catchment Attribute Allocation & Accumulation Tool, 3/26/2008, V1.009

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
CA3T has two functions, an attribute allocation function and an attribute accumulation function, which may be used separately or in combination. The CA3T allocation function takes a user-supplied grid format dataset of one or more landscape attributes and allocates the attributes to the NHDPlus catchments. The CA3T accumulation function builds, for each NHDPlus Flowline, the total upstream accumulated values for attributes that have been allocated to either NHDPlus catchments or NHDPlus flowlines.

Platform/operating system:
Windows XP w/ Service Pack 2 and Vista; Microsoft .Net 2.0 Framework (or above)

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus Dataset
NHDPlus Tools Application Data, Version 1

Data format and compatibility:
ESRI Shapefiles, ESRI Grids, and Microsoft Access

Will the application import and export data files ?
n/a

Is the application flexible to couple with external programs and user created executables?
n/a

Are system and user documentation available?   Are example applications available?
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

Does the application require prior installation of ESRI software?   If so, which products?
Yes - ArcGIS 9.2 (ArcInfo license level), Service Pack 4 or above; ArcGIS Spatial Analyst Extension

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480

Name of Application, date, version number:
NHDPlus VAA COM Object Navigator Tool, 4/7/2008, V1.03

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
The VAA COM Object Navigator uses the NHDPlus value added attributes to perform four types of navigations: upstream main stem, upstream with tributaries, downstream main stem, and downstream with divergences. Any of the four types of navigation may be stopped at a user-supplied distance from the starting point. This navigator may be used through ArcMap via a special ArcMap Toolbar or it may be called from user-written program code. The navigator will work on any NHDGEOinSHP dataset that contains a fully populated NHDFlowlineVAA.dbf table (generally this means an NHDPlus dataset). When used via the ArcMap toolbar, results are returned to ArcMap as a new layer in the map called Navigation Results. This navigator is a COM object and may be call from user-written code that is developed in a COM-compliant programming language.

Platform/operating system:
Windows XP w/ Service Pack 2 and Vista; Microsoft .Net 2.0 Framework (or above)

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus Dataset

Data format and compatibility:
ESRI Shapefiles and Microsoft Access

Will the application import and export data files ?
n/a

Is the application flexible to couple with external programs and user created executables?
Yes

Are system and user documentation available?   Are example applications available?
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

Does the application require prior installation of ESRI software? If so, which products?
Yes - ArcGIS 9.2 (ArcInfo license level), Service Pack 4 or above

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480

Name of Application, date, version number:
NHDPlus Flow Table Navigator Tool, 2/12/2007, V1.00

Contact (with e-mail, web site, and/or phone number):
Horizon Systems Corporation (under contract to EPA), NHDPlus@hscnet.com
http://www.horizon-systems.com/NHDPlus/tools.php, 703-471-0480

Brief Description:
The Flow Table Navigator uses the NHDFlow table to walk the network from one network feature to the next. The navigator performs four types of navigations: upstream main stem, upstream with tributaries, downstream main stem, downstream with divergences. It may be used through ArcMap via a special ArcMap Toolbar or it may be called from user-written program code. The navigator will work on any NHDGEOinSHP dataset, including NHDPlus, that contains a fully populated NHDFlow.dbf table. Results are returned to ArcMap as a selected set of the NHDFlowline layer. When used outside of ArcMap, results are returned in a text file residing in the highest level directory of the NHDPlus dataset.

Platform/operating system:
Windows XP w/ Service Pack 2; Vista

Web-based or desk-top application ?
Desk-top

Data Requirements:
NHDPlus Dataset

Data format and compatibility:
Microsoft Access

Will the application import and export data files ?
n/a

Is the application flexible to couple with external programs and user created executables?
Yes

Are system and user documentation available?   Are example applications available?
Yes - http://www.horizon-systems.com/NHDPlus/tools.php

Does the application require prior installation of ESRI software?   If so, which products?
No

Is there a user group or hotline-type support?
Yes to both - NHDPlus@hscnet.com- 703-471-0480