Geocortex Viewer for HTML5 (GVH) - VertiGIS Studio Web (VSW)
Feature Comparison Matrix

Environment & Architecture

	Geocortex viewer for HTML5 (GVH) Current	VertiGIS Studio Web (VSW) 5.28 *alternative = done differently*
Framework Architecture		
XML and JSON based configuration	x	x
Site configuration inheritance to eliminate duplicated settings across applications	x	alternative
Referencable configuration at granular component level supporting re-use		x
Web-based application builder and configuration interface	x	x
Live interactive preview directly in configuration interface		x
Manage multiple applications from single installation	x	x
Management Tools		
In GXW configuration of the webmap drives a significant portion of application behavior		x
Separate administrative web application	x	x
Manage map resources / map services	x	x
Manage layer settings	x	x
Manage application settings (attributes / fields, layer reports, etc.)	x	x
Manage feature layer symbology	x	x
Device Support		
Support for desktop browsers on Windows and Mac OS X	x	x
Use the same application on a variety of popular devices	x	x
Support for iPhones and iPads	x	x
Support for Android smartphones and tablets	x	x
Browser Support		
Internet Explorer 9-11 on Windows (Esri JavaScript 4.x API does not support IE)	x	not planned
Microsoft Edge on Windows	x	x
Firefox on Windows	x	x
Chrome on Windows	x	x
Safari on iOS	x	x
Chrome on Android	x	x
Security		
In GXW configuration of portal secuirty drives a significant portion of application behavior		x
Secure applications based on users and roles	x	x
Fine-grained user-level authorization on map services, feature services, layers, and attribute fields	x	VSAC
Fine-grained user and group level visibility for UI components and menu items (tools)		x
Active Directory / LDAP / Windows authentiation / etc	x	x
Support for Active Directory Federation Services	x	x
Single Sign-On using Windows Authentication	x	x
Enable anonymous / guest access	x	x

Sign-in and sign-out links	x	x
Support for ArcGIS Server secured map services	x	x
Support for ArcGIS Online secured content	x	x
Support for Portal for ArcGIS secured content	x	x
Application Integration		
Launch from selected features to external applications	x	x
Embed map in third-party applications, highlight features from external systems	x	x
Invoke viewer commands from third-party applications	x	x
Listen to viewer events from third-party applications	x	x
Support for launching external maps (Google StreetView, Bing Maps, etc.)	x	x
Support for bi-directional navigation with viewer and Bing or Google StreetView	x	x (SDK)
Support for bi-directional navigation with viewer and Pictometry	x	x (SDK)
Links to share URL and state with Facebook, LinkedIn, Twitter and Google+	x	x
Link to share URL and state via email	x	x
URL Parameters		
Pass parameters / instructions to the viewer on startup	x	x
Zoom to extent / identify / query / search >> via GXWF	x	x
Developer APIs		
API documentation, SDK, and samples	x	x
TypeScript-based Essentials API	x	x
Extensibility framework	x	x
JavaScript Integration API (enable bi-directional communication between the viewer and third-party applications)	x	x
ArcGIS API 3.x for JavaScript	x	does not apply
ArcGIS API 4.x for JavaScript		x
Logging		
System event and application usage logging	x	x
Performance monitoring and system statistics	x	VS Analytics
Internationalization		
Viewer and management UIs internationalized for foreign language support	x	x
Toolkit / documentation resources for translators	x	Transifex

Esri & Mapping

Map Service / Layer Types Support		
ArcGIS Server dynamic, tiled, feature, raster and image services	x	x
Bing Maps layers	x	
OGC WMS layers (visualization)	x	x
OGC WMS layers (identify support)	x	x
OGC WFS layers (find, identify and query support - not visualization)	x	x
OGC WFS layers (visualization)	x	

OGC WMTS layers	x	x
Graphics and feature layers	x	x
Imagery layer identify support	x	x
GeoRSS layers (including point-, line- and polygon-based layers)	x	x
OpenStreetMap layers	x	x
General web tile layer	x	x
Graceful handling of intermittently available services	x	x
KML layers	x	x
ArcGIS Server time-aware layers (base support added, incubator time-slider available)	x	x
ArcGIS Server stream layers	x	x
Manage a catalog of dynamic layers (with ArcGIS Server 10.2+)	x	x
ArcGIS Online & Portal for ArcGIS Support		
Search for Web Maps and services hosted on ArcGIS Online	x	x
Search for Web Maps and services hosted on Portal for ArcGIS	x	x
Reference ArcGIS Online Web Maps within applications	x	x
Reference Portal for ArcGIS Web Maps within applications	x	x
Override ArcGIS Online Web Map settings to enhance capabilities	x	x
Access to secured ArcGIS Online and Portal content using OAuth2	x	x
Sign-in using ArcGIS Online or Portal identity	x	x
Export map as web map and store in ArcGIS Online or Portal	x	x
Publish a viewer as an application item in Portal for ArcGIS or ArcGIS Online	x	x
Map Service Functionality		
View multiple, concurrent services (mash-ups)	x	x
Render client-side graphics	x	x
Control map service and layer visibility (transparency cfg is in webmap)	x	x
Control scale dependency of basemaps	x	x
Toggle map contents in bulk by switching between layer themes	x	x
Group multiple services together into a single basemap	x	x
Support for feature clustering	x	x
Support for feature heatmaps	x	x
Apply field-based weighting to heatmaps	x	x
Support legends for heatmaps and clusters	x	x
Specify time extent on time-aware layers with time sliders (Esri time-slider in incubator)	x	partial
Dynamically symbolize layers based on attributes with class breaks and unique value renderers	x	
Dynamically modify layer labels - choose fields, fonts and styling	x	x
Dynamically modify layer drawing order (via webmap and by end-user)	x	x
Automatically update layers on configured intervals	x	x (VSWF)
# Tools & Features		
Map Control		
Tile-based maps	x	x
Continuous panning	x	x
World wrap-around support (continuous panning around dateline)	x	x
Keyboard navigation	x	x

Configurable on-map display of copyright information and attribution	x	x
Right-click context menu (added support for touch devices)	x	x

Navigation

Full & initial extent commands	x	x
Zoom to layer extent	x	x
Scale slider / zoom level	x	x
Zoom and pan tools	x	x
Bookmarks / jump to extent	x	x
Save bookmarks on the end-user workstation	x	x
Mouse wheel zoom / double-click zoom	x	x
Keyboard arrows for panning	x	x
Zoom and pan with hand gestures	x	x
Zoom to current user location using GPS, WiFi or IP	x	x
Follow current user location using GPS, WiFi or IP	x	x
Track current user location using GPS, WiFi or IP	x	x
Scale input box	x	x

Widgets & Controls

Base map toggle control	x	x
Scale bar	x	x
Bookmarks / jump to extent	x	x
Map tips / pop-ups (hover on top of features for data)	x	x
Mouse coordinates (XY location of mouse)	x	x
Aerial imagery basemap time slider - not yet (try layer comparison swipe tool)	x	x
Time sliders for time-aware layers (Esri time-slider in incubator)	x	x
Ratio scale information and input box	x	x
Right-click context menu	x	x
Interactive overview map	x	x

Layer List / TOC

Toggle map service and layer visibility	x	x
Control layer transparency	x	x
Organize and re-order layers and services into a custom structure with folders	x	via webmap
Show symbols for layers inline, or in a separate panel	x	x
Option to hide symbols for non-visible layers	x	x
Standalone legend viewer	x	x
Respect group layers and group layer behavior	x	x
Respect map service layer visibility	x	x
Display graphics layers	x	x
Layer name aliasing	x	x
Zoom to layer scale / layer extent	x	x
Toggle visibility of layer labels	x	x
Filter / search for layers	x	x
Symbolize uploaded graphics layers	x	x
Group multiple layers into a single "composite" layer to toggle visiblity of multiple layers at once (layer list component in GXW Designer)	x	x

Support "radio button" style layer visibility so only one layer can be visible at a time within a group (layer list component in GXW Designer)	x	x

Application Interface / Layout

Dynamic, explorable UI hides and shows relevant components when needed	x	x
Configurable welcome / intro panel describes application purpose	x	x
Application splash screen configurable per-viewer	x	planned
Completely customizable "wireframe"-based layout	x	x
Configurable themes (colors and fonts)	x	x
Configurable banner, title page, toolbar, legend	x	x
Preconfigured toolbar options for full functionality	x	x
Quick "Google-style" search box in banner	x	x
Multiple toolsets (tool boxes)	x	x
"I Want To…" Menu	x	x
Resizable data frame supporting multi-view controls	x	x
Tabular report frame	x	x
Maximize report frame to cover map	x	x
Multiple views to support a variety of form factors (desktop view, tablet view, and handheld view)	x	x
Dynamic responsive layouts to form factors with support for multiple dedicated layouts		x
Accessibility (WCAG 2.0 AA Compliance) for users with disabilities	x	x
Complete keyboard interface navigation and keyboard tool usage support	x	x
Complete screen reader support	x	x
Application footer with configurable hyperlinks	x	x
Compact toolbar option for applications with a small number of tools	x	x
Multi-tool element for grouping tools that support multiple shapes	x	x
Context-sensitive toolbars that display when specific tools are activated	x	x
Keyboard skip link navigation	x	x
Right-click context menus	x	x

Identify / Selection

Identify tool	x	x
Identify by rectangle	x	x
Identify by polyline	x	x
Identify by polygon	x	x
Select from multiple layers simultaneously	x	x
Zoom to selection	x	x
Launch reports and actions from identify results	x	x
Buffer identify results	x	x
Configurable map tips / pop-ups	x	x
Map tips drill down through multiple layers/features	x	x
Identify by freehand polygon	x	x
Choose identifiable layers	x	x
Buffer identify / select tools	x	x
Store selected sets (starred results + commands)	x	x
Maintain multiple selected sets (starred results + commands)	x	x
Union selected features / clear selected features (starred results + commands)	x	x
Toggle selection highlighting, and buffer selection	x	x

Launch reports and actions from selection	x	x
Search / Find		
Index-based instant search results	x	VSS
Routinely scan map services and feature services for data to index	x	VSS
Sort search results by relevance to search term	x	x
Automatically and instantly display search results on the map	x	x
Display search hints while the user is typing	x	x
Search through one or more layers	x	x
Define simple or advanced queries with the dynamic query builder	x	x
Create advanced queries that join expressions with AND as well as OR conjuctions	x	x
Filter features in layers based on queries	x	x
Configurable search input forms	x	x
Geocode address / intersection	x	x
Support multi-line geocoders	x	x
Support secured geocode services	x	x
Reverse geocode (find address at location)	x	x
Locate lat / long, and locate coordinate	x	x
Search non-spatial data	x	x
Query non-spatial data with Query Builder	x	x
Administrator defined queries	x	x
Displaying Attribute Data		
Interactive feature list, details and tabular views	x	x
Dynamic list / table paging and sorting	x	x
Configurable map tips / pop-ups	x	x
Feature labels and descriptions for readability	x	x
Enhanced feature display including basic HTML markup	x	x
Display external images associated with features	x	x
Attribute aliasing and attribute visibility settings	x	x
Hyperlink attribute values	x	x
View results for multiple layers simultaneously	x	x
Configurable "per-feature" hyperlinks (to external content)	x	x
Launch feature report	x	x
Display related, non-spatial data	x	x
Display data from ArcGIS Server Relationship Classes	x	x
Display / download feature attachments	x	x
Display coded value domains	x	x
Supply field value formatting for dates and numbers	x	x
Convert dates to local timezone	x	x
Configurable field order in list and tabular display of attribute data	x	x
Verify hyperlinks before displaying to user	x	
Markup / Drawing		
Markup by Point, Line / Polyline and Freehand Line	x	x
Markup by Rectangle, Square, Circle (no Oval or Arrow supported in Esri API yet)	x	x
Markup by Freehand Polygon	x	x
Markup by Text	x	x

Move markup, and vertex of markup	x	x
Fill / line / point type, text color and transparency	x	x
Boundary color / width / type / transparency	x	x
Extract markup to Shapefile	x	x
XY Coordinate Markup	x	x
Choose markup symbology	x	x
Configure detailed markup symbols including boundary and fill options	x	x
Undo and redo markup actions >> z undo last vertex	r redo last vertex	x	x
Single-click on markup features to begin editing them (can be configured)	x	x
Analysis Tools		
Measurement tools	x	x
Measure line / measure area	x	x
Measure rectangle, circle, oval, freehand line and freehand polygon	x	x
Change measurement units	x	x
Display measured perimeter	x	x
List shape measurements in a tabular grid	x	
Display linear segment angle and bearing	x	
Export shape measurements to CSV	x	
Zoom-to-coordinate tools	x	x
Plot coordinates in map units / DD / DMS	x	x
Re-project coordinates	x	x
Support coordinates with any coordinate system that uses a WKID	x	x
Support coordinates using MGRS and USNG	x	x
Charting		
Configuration of multiple charts on a layer-by-layer basis	x	x
Support for pie charts	x	x
Support for linear charts (scatter plot, line, bar, spline, etc.)	x	x
Display of chart for a collection of features	x	x
Display multiple charts at once	x	x
Display a chart for an individual feature	x	x
Configure which chart(s) to display	x	x
Configure chart styling (colors, legend, titles, fonts, etc.)	x	x
Chart components highlight data on the map	x	x
KPI indicator cards		x
Editing		
Editing of features belonging to a spatial feature class	x	x
Create spatial features (points, polylines, polygons)	x	x
Create point-based features using geolocation/GPS	x	x
Move / modify / delete spatial features and vertices	x	x
Edit feature attributes one feature at a time	x	x
Add attachments to features	x	x
Use subtypes, domains and field validation feature editing forms	x	x
Edit and delete related records associated with editable feature layers (no Add yet)	x	x
Union and cut geometries	x	
Union and cut geometries APIs	x	

Snapping	x	x
Edit feature attributes within a data grid	x	
Printing		
Invoke GP5 printing	x	x
Reporting		
Invoke GR5 report from features	x	x
Workflow		
Run GW5 workflows	x	x
Execute ArcGIS geoprocessing task / model	x	x
Prompt user for inputs to geoprocessing task	x	x
Save / Open Project		
Save current application information	x	x
Save feature selections	x	x
Save graphics / markup / drawings / map extent / map service visibility & transparency	x	x
Save layer visibility	x	x
Share projects with URL (or file)	x	x
Save project files privately (don't share with others)	x	x
Open previously saved projects	x	x
Filter between private, public and all saved projects	x	x
Choose group-level and user-level permissions for saved projects	x	x
Manage saved projects on the server (S3 bucket management utilities)	x	x
Download / Extract Data		
Extract feature geometry and data workflow (clip, zip & ship) >> fme activity pack	x	x
Extract features to Shapefile	x	x
Extract features to File GeoDatabase (GDB)	x	
Extract features to CAD formats	x	
Extract raster data to a variety of raster formats	x	
Clip geometry to current extent, or user-defined geometry	x	
Extract / copy map image (see Workflow's Get Map Screenshot activity)	x	x
Extract feature attributes to excel files (XLSX and CSV)	x	x
Extract data from related records and data links to excel files (XLSX and CSV)	x	
Extract markup to Shapefile	x	x
Upload / Import Data		
Attach files and images to features from mobile devices	x	x
Upload Shapefile to dynamic feature layer	x	x
Upload CSV file to dynamic feature layer	x	x
Upload address file (Excel or CSV) and perform batch geocode	x	
Upload FileGDB to dynamic feature layer	x	
Upload KML to dynamic feature layer	x	
Upload GPX to dynamic feature layer	x	
Search and identify data in uploaded layers	x	x

Search, discover, dynamically add WMS layers, ArcGIS Server map services and feature layers	x	x
Data Linking		
Connect layer features to external, non-spatial data sources	x	x
Support for all ADO.NET data sources (Oracle, SQL Server, XML files and others)	x	x
One-to-many relationships	x	x
One-to-one relationships	x	x
Display data links in dynamic list report / table report	x	
Collaboration		
Real-time, map-based collaboration tools	x	not planned