Environmental software

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Environmental software

Water

Wastewater

Air

Solid waste

Hazardous waste

Environmental impact analysis

Urban planning

Ecological design

Environmental compliance

Water

Water quality

[SWAT](#) (Texas A& M)
[Delft 3D](#)
[QUAL 2E](#)

Gualtieri and Lopez,
[“River water quality management”,](#) 2012

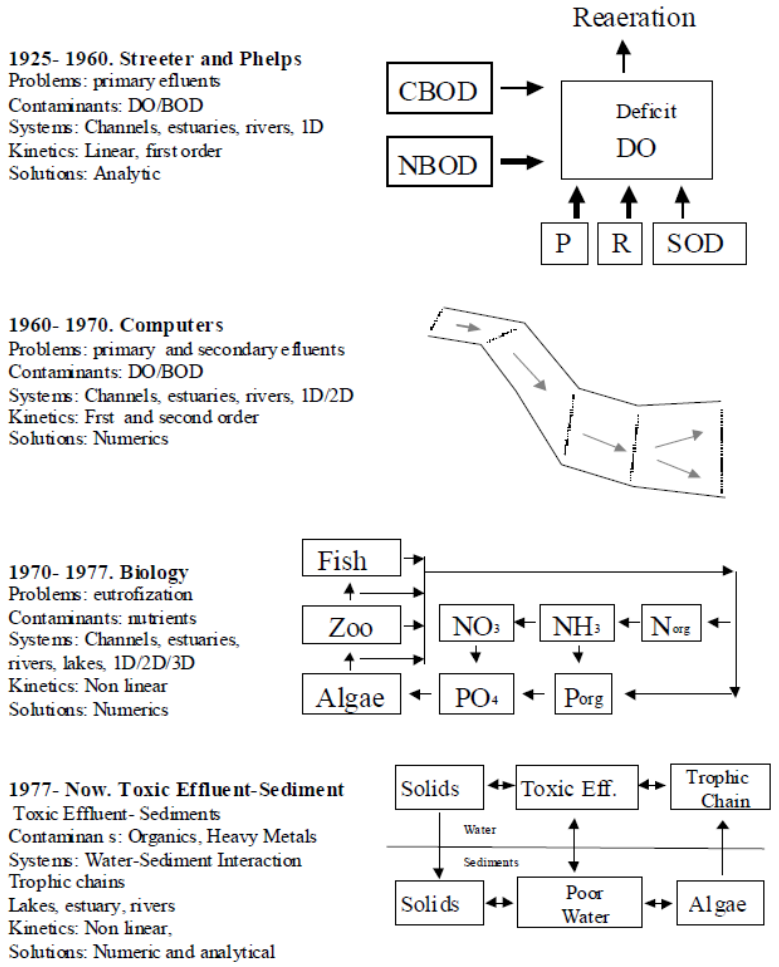


Figure 1. DO Models evolution. Adapted from Chapra, 2006.

Water

Hydrological models

Table 1. Characteristics of three models.

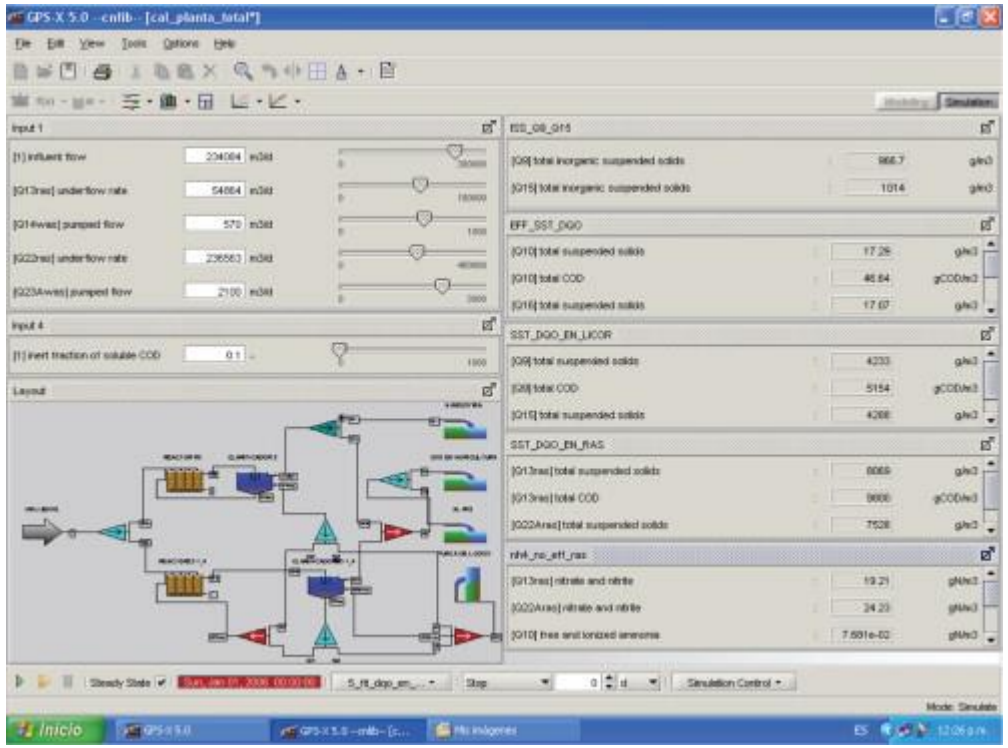
Empirical model	Conceptual model	Physically based model
Data based or metric or black box model	Parametric or grey box model	Mechanistic or white box model
Involve mathematical equations , derive value from available time series	Based on modeling of reservoirs and Include semi empirical equations with a physical basis.	Based on spatial distribution, Evaluation of parameters describing physical characteristics
Little consideration of features and processes of system	Parameters are derived from field data and calibration.	Require data about initial state of model and morphology of catchment
High predictive power, low explanatory depth	Simple and can be easily implemented in computer code.	Complex model. Require human expertise and computation capability.
Cannot be generated to other catchments	Require large hydrological and meteorological data	Suffer from scale related problems
ANN, unit hydrograph	HBV model, TOPMODEL	SHE or MIKESHE model, SWAT
Valid within the boundary of given domain	Calibration involves curve fitting make difficult physical interpretation	Valid for wide range of situations.

K. Gayathri et al,
A Review of Hydrological Models, 2015

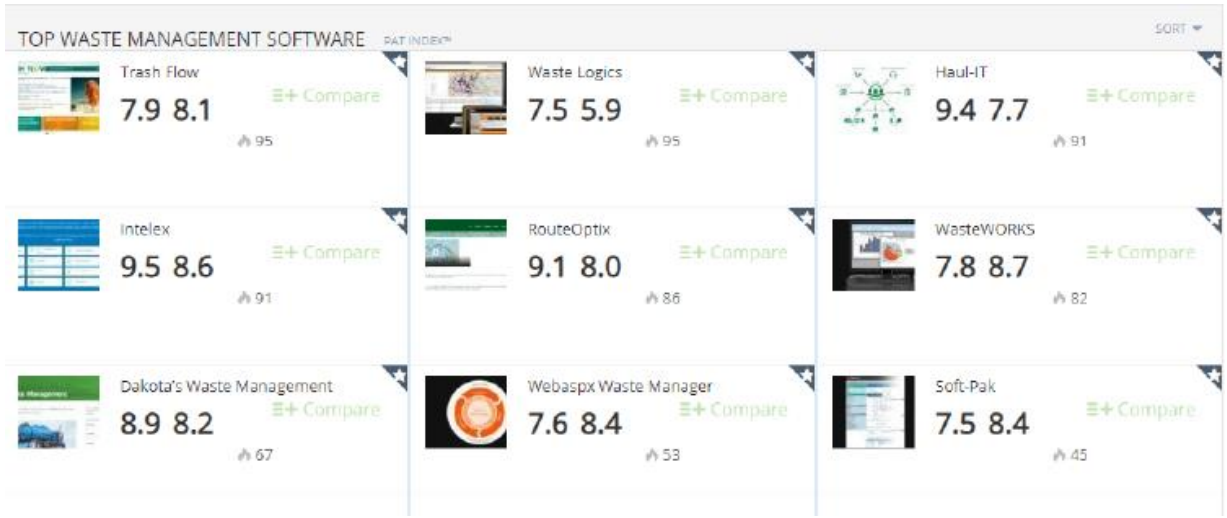
Wastewater

GPS-X

STOAT (open source)



Solid waste



[Waste management software]

Hazardous waste

hazardous waste management software

Hazardous Waste Management

IHS Markit

Automate tracking of hazardous materials down to individual containers throughout your operations to improve the efficiency of your waste management program. IHS provides the information you need to safely store, transport and use regulated chemicals, while maintaining compliance with regulations worldwide.

By IHS Markit based in **Englewood, COLORADO (USA)**. from IHS Environmental Performance Solution Software line

TDXConnect - Hazardous Waste Managing Software

terralink

Terralink, the first company to deliver a Windows-based solution for managing hazardous waste, introduces TDXConnect, a Web application making access to profiles, manifests and reports easier than ever. While desktop solutions remain important, there is a clear trend toward applications accessed through a Web site. By having Internet access to a ...

By Terralink Systems Inc. based in **Portland, MAINE (USA)**.

EnviroWare - Robust Hazardous Waste Management Software

EnviroWare provides an enterprise-wide management solution designed specifically for companies treating, storing and disposing of special case materials, such as hazardous waste. EnviroWare helps these companies streamline their operations by automating many of the repetitive tasks necessary to process waste. EnviroWare also vastly improves ...

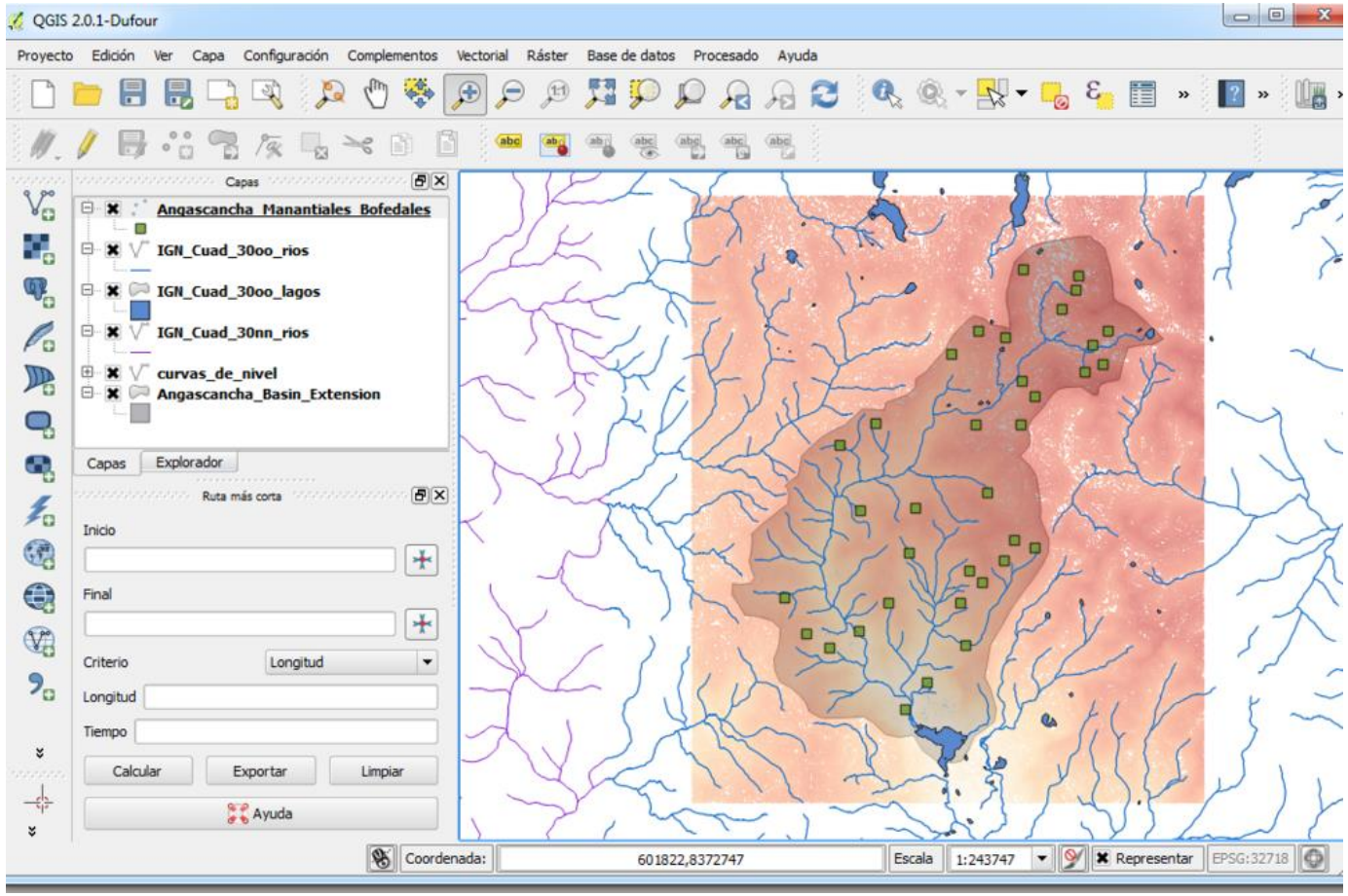
By Contemporary Software, Inc. based in **Wexford, PENNSYLVANIA (USA)**.

[Hazardous waste management software]

Environmental impact analysis

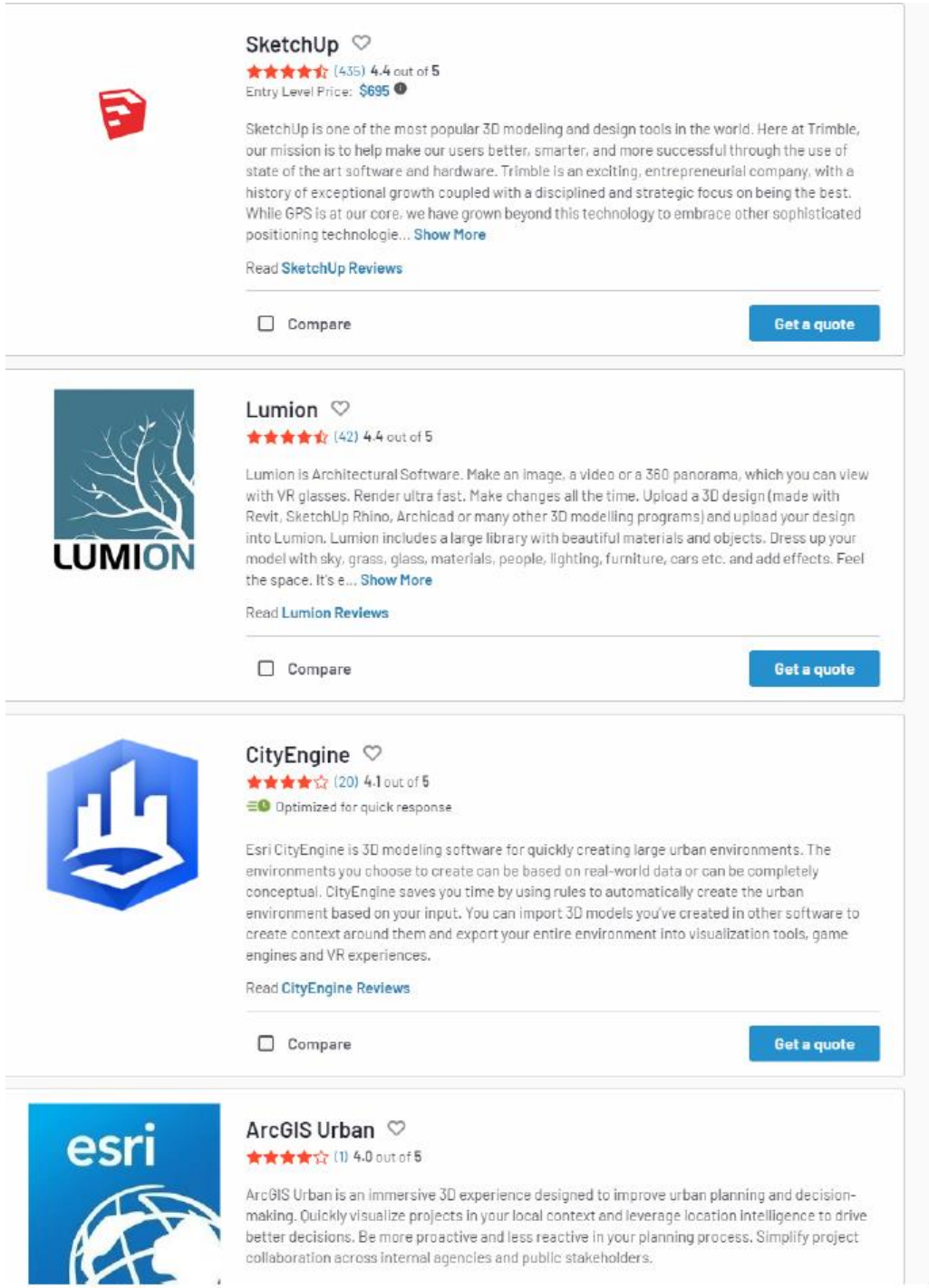
[Environmental Impact Assessment (EIA) Software]

[Envigo]



Urban planning

[Urban planning and design software]



Ecological design

Eco-design tools

Granta Design Solutions

→ Granta Design solutions include GRANTA MI:Product Intelligence – tools to apply a comprehensive database of materials engineering, process, and eco data in order to assess environmental impact and risks in products and product designs.

Provider
→ Granta Design

Makersite

→ Makersite is the largest, integrated product management platform on the web. That includes all-in-one data, apps and community for eco-design and product stewardship. Made for entrepreneurs, engineers and product teams. Join for free if you make, buy, sell or research products.

Provider
→ Makersite

EcodEx

→ EcodEX is an eco-design software that allows food companies to improve the sustainability of their new products or existing portfolio, in a cost-effective and simple way. EcodEX allows product developers to easily make a sustainability assessment of a product, based on the evaluation of carbon footprint, water use, energy use, land use and other criteria.

Provider
→ Selerant

One Click LCA

One Click LCA is the only LCA software to ever receive a Mat 01 100% rating for BREEAM and is compliant with more than 20 other Green Building certifications, including LEED, DGNB, and Energie Carbone. Thanks to our easy to use interface and BIM automation, you can calculate your building's Life-Cycle Assessment in one hour.

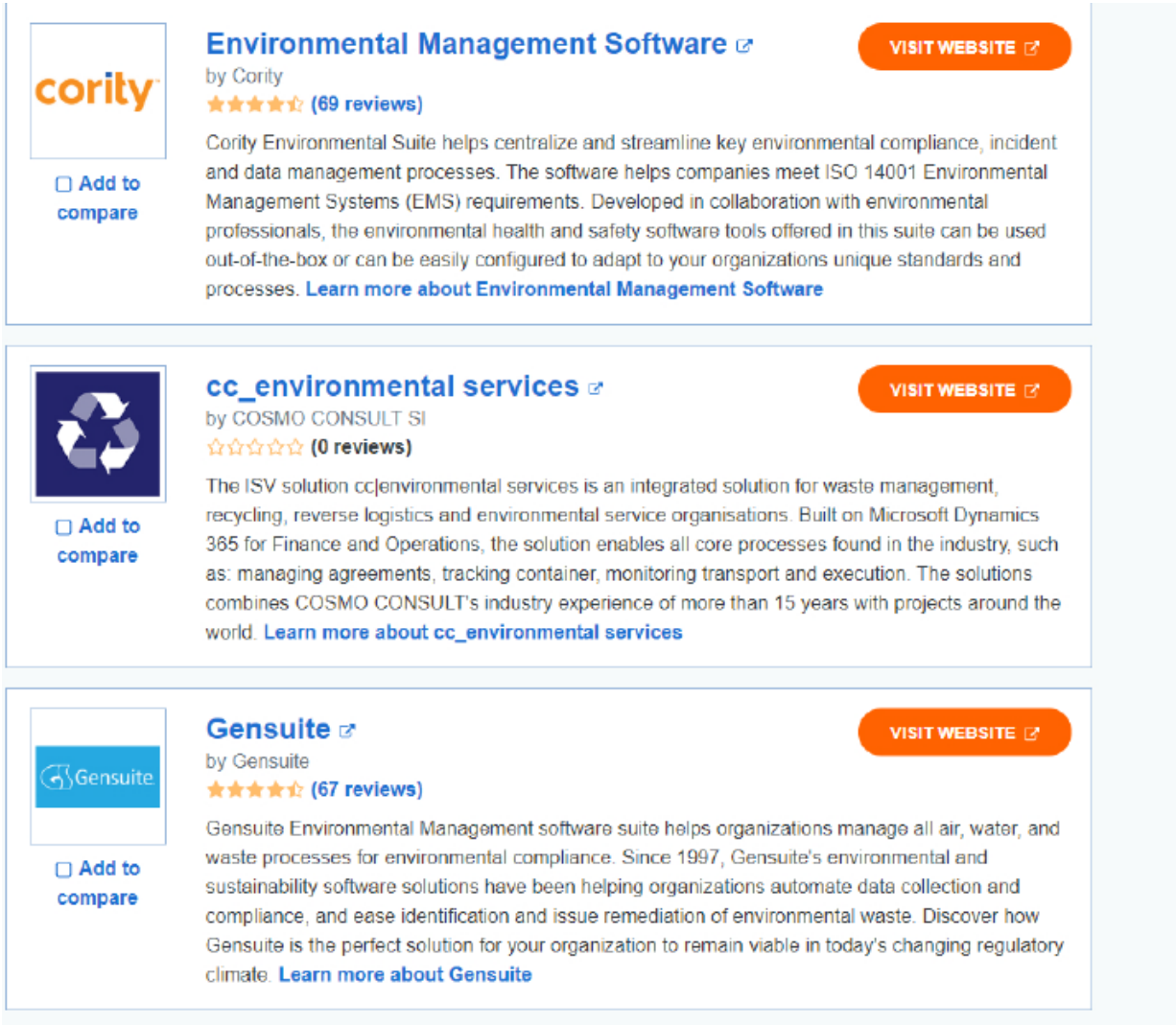
Provider

Paper Metrics®

→ Paper Metrics® is an IT application developed by Ecofolio, the French Paper PRO (Produce Responsibility Organisation), a non-profit private company entrusted by French authorities. Ecofolio is responsible for paper recycling in France. Suppliers of printed products traditionally include information on quality, cost and deadlines on their quotations. Thanks to Paper Metrics®, the quotations will now also feature the

Air.e HdC

→ Air.e HdC is a professional software tool designed for Carbon Footprint experts to help them in calculating and assessing GHG emissions of organizations, products, services, events, and projects using a life cycle approach. Air.e HdC has been developed to follow international standards such as ISO 14040, PAS 2050, GHG Protocol, ISO 14064, ISO 14064 and ISO 14069.

Environmental compliance

[Environmental compliance software]