

ALTAIR

Altair® Weight Analytics™

Version 2025

Release Notes

Altair Weight Analytics 2025 Release Notes

Updated: Dec 2024

Intellectual Property Rights Notice:

Altair® Weight Analytics™ ©2013-2024

Contents

OVERVIEW OF ALTAIR WEIGHT ANALYTICS	4
WA CAPABILITIES	4
ALTAIR WEIGHT ANALYTICS 2025	5
New Home Page and Right Click	5
Advanced Search new Operators	5
Part Attachment	6
BUG FIXES	6
KNOWN ISSUES	6

OVERVIEW OF ALTAIR WEIGHT ANALYTICS

Weight & Balance Engineering, also known as **Mass Properties** Engineering, is the technical discipline which refers to the prediction, determination, management and tracking of the weight, center of gravity and moment of inertia for a new product. These KPIs are important for determining the product's performance and capabilities.

Altair Weight Analytics (WA) opens new horizons by incorporating weight and balance information in the design and development process. WA solution manages the entire Weight and Balance (W&B) process empowering engineering and management teams to control and ensure that W&B attributes meet the program requirements.

Altair Weight Analytics is the Altair solution empowering Engineers and Executives to make better and faster decisions. The solution manages the entire Weight and Balance process in one openly architecture along the entire design process from Concept to Development, Engineering, and Manufacturing.

Starting from version 2024, **Altair Weight Analytics** manages **Cost** values in a similar way as per **Weight and Balance**. Cost is defined as a vector of values like Manpower, Material, Transportation, etc. which contributes to the Total Cost associated to product structure nodes.

Deployed as a common weight management tool across the enterprise, WA enables faster and accurate decision-making with on-demand access to visualize, analyze, and predict W&B and Cost during the **Product Life Cycle** (PLC). WA is highly configurable to work seamlessly within any IT environment. Its open architecture streamlines the time-consuming repetitive tasks associated with data consolidation and provides the "right" information when needed.

During the whole design process of a complex product like helicopter, ship, rocket, transportation vehicle, etc. is crucial to keep under control all the weights and costs of different components as well as centers of gravity and inertia properties, considering different value maturity levels such as estimated, calculated, weighed, and so on.

Weights, CoGs, Inertia, and Cost will be summed using a rolling up algorithm considering maturity level in an order of priority.

Thanks to the powerful **business intelligence tool** embedded into WA, users can look at several data dimensions quickly, slice and dice data easily and intuitively.

WA Capabilities

Reduced decision-making time that can be utilized for analyzing the information and providing solutions for W&B and Cost targets.

Run what-if scenarios that can lead to actionable information for key decision making.

Visualize, analyze, and predict risk and opportunities at any point in time during the PLC.

Track and control the weight and maturity of the product.

Dramatic time reduction for data consolidation owing to the direct or indirect connection to your company's PLM systems.

Consistency of information across the enterprise.

Standard reporting capabilities.

Customization based on independent plugin architecture.

See also: <https://altair.com/altair-weight-analytics>

ALTAIR WEIGHT ANALYTICS 2025

Altair’s Weight Analytics version 2025 introduces the following new functionalities:

- New Home page and Right-click
- Advanced Search new operators
- Part Attachment

New Home Page and Right Click

A more organized Home page with the addition of the right-click functionality to expand, collapse, and operate on structure nodes.

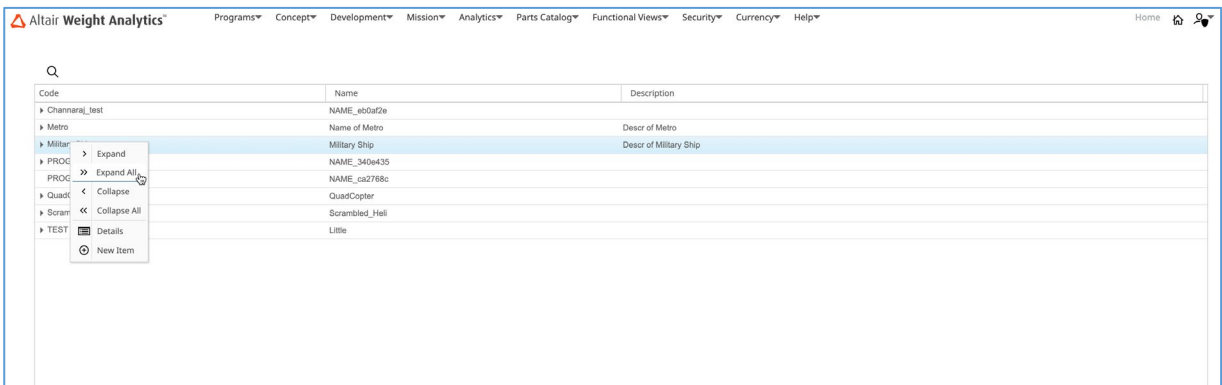


Figure 1 Home Page

Advanced Search new Operators

The Advanced Search functionality is now improved with parentheses and new operators “IS DUPLICATED” and “ORDER BY”.

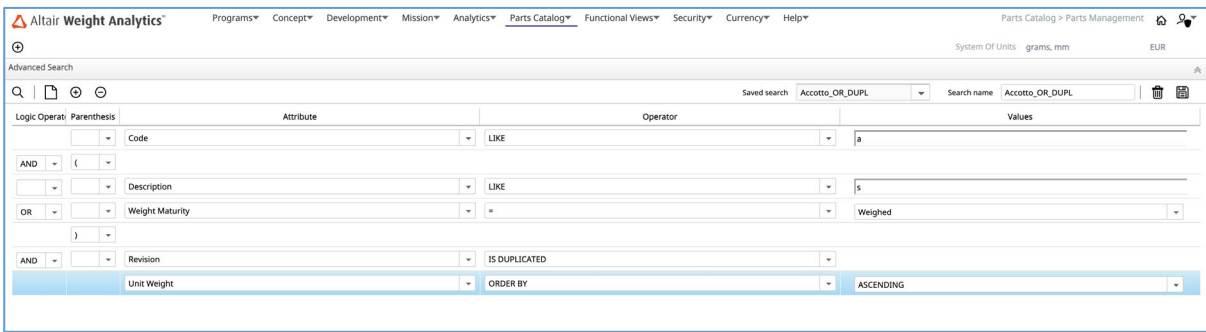


Figure 2 Advanced Search

Part Attachment

In addition to file attached to any level of Program/Version/Variant/Product, WA now allows you to attach files to single part as well.

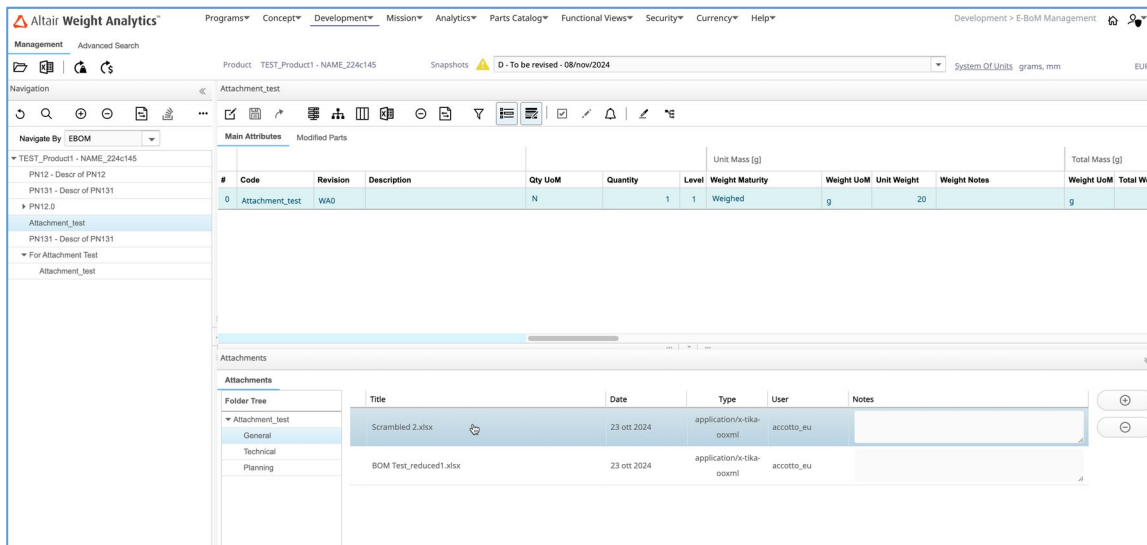


Figure 3 Part Attachment

BUG FIXES

- Keep the scrollbar position in any grid
- Multiple fixing in Concept panels
- Multiple part modification
- Mass and Cost maturity chart
- Cost values editing
- Mission: Create items and Product kit
- Instability in Concept>R&O functionality
- Conversion of F-BoM to E-BoM in Concept

KNOWN ISSUES

- 3D Scatter plot on CoG has performance issues related to number of plotted points. It is suggested to visualize one assembly points only to speed up rotation.
- Advanced Search might be slow in case of queries returning huge amount of rows especially while using "IS DUPLICATED" operator.