Uberlytics™

Helping organizations build better risk-based asset management programs.

ASSET MANAGEMENT SOLUTIONS
FOR INDUSTRY & INFRASTRUCTURE

ABOUT UBERLYTICS

Uberlytics helps asset intensive organizations connect their asset management aims to reliability and maintenance execution priorities through asset management coaching supported by our criticality analysis software and facilitation.

We are experts and innovators in risk and criticality analysis for complex facilities and systems.

ABOUT US

Uberlytics specializes in relative system risk analysis. We created the Criticality Analyzer™, a powerful software tool specifically designed as a stand-alone application enabling you to rapidly conduct a facility-wide criticality analysis.

Our team has extensive experience operating numerous industrial and municipal facilities, facing many of the same budget, uptime, capacity, and risk mitigation challenges you face. We understand the value of identifying and ranking all risks, knowing and justifying where to spend shrinking maintenance and capital budgets, discovering hidden safety and environmental risks, including commercial and contractual issues affecting our operation, and of discovering what could shut us down.

We bring this real world expertise and passion to every analysis.

The Uberlytics approach to criticality analysis and early version of the support software were originally developed by a team within a large global facility operations business. The combined approach and software were designed to be the foundation of an asset management program; to efficiently and accurately identify critical systems and their assets; and to focus limited resources for next-step RCM, condition assessment studies, and PM optimizations, in alignment with corporate goals and values.

Uberlytics was launched as an independent company in 2009 and is a woman-owned small business.

SOLUTIONS & SOFTWARE

- **Criticality Analyzer™**

- **Hierarchy Navigator™**

- **Asset Type Code & Failure Mode Library**

- Functional System Criticality Analysis™ Facilitation

- Criticality & Risk Consulting

- Hierarchy Consulting

- Asset Management Roadmap Coaching

MISSION
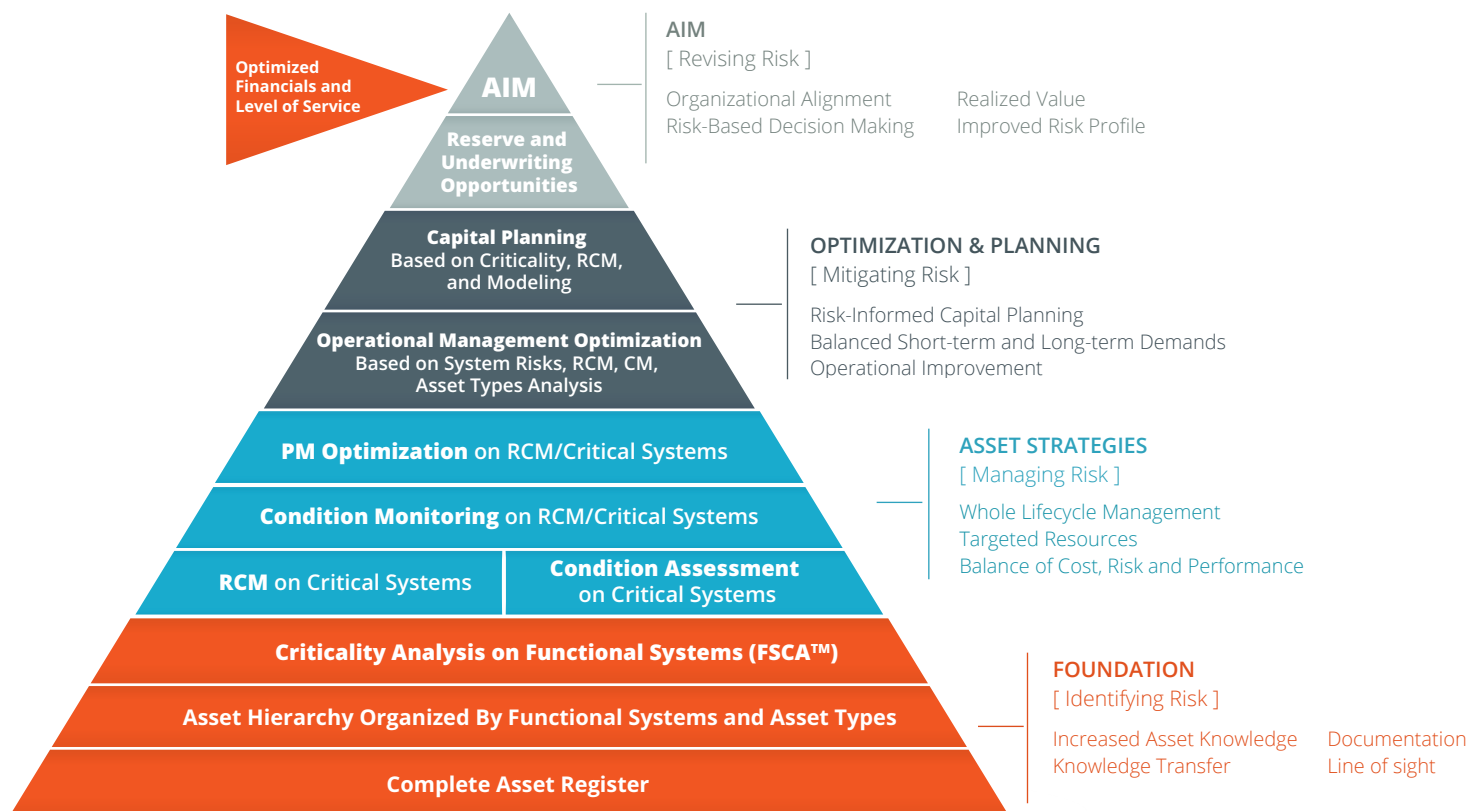To help organizations build better risk-based asset management programs.

Align your program with your organizational aim.

Identify risk and set the right priorities.

Make better risk-based decisions.

Do the right things in the right order.

ASSET MANAGEMENT FOUNDATIONS™

The Uberlytics Asset Management Foundations™ program establishes a framework and roadmap for successful asset management for organizations launching a new program or rebooting their existing effort.
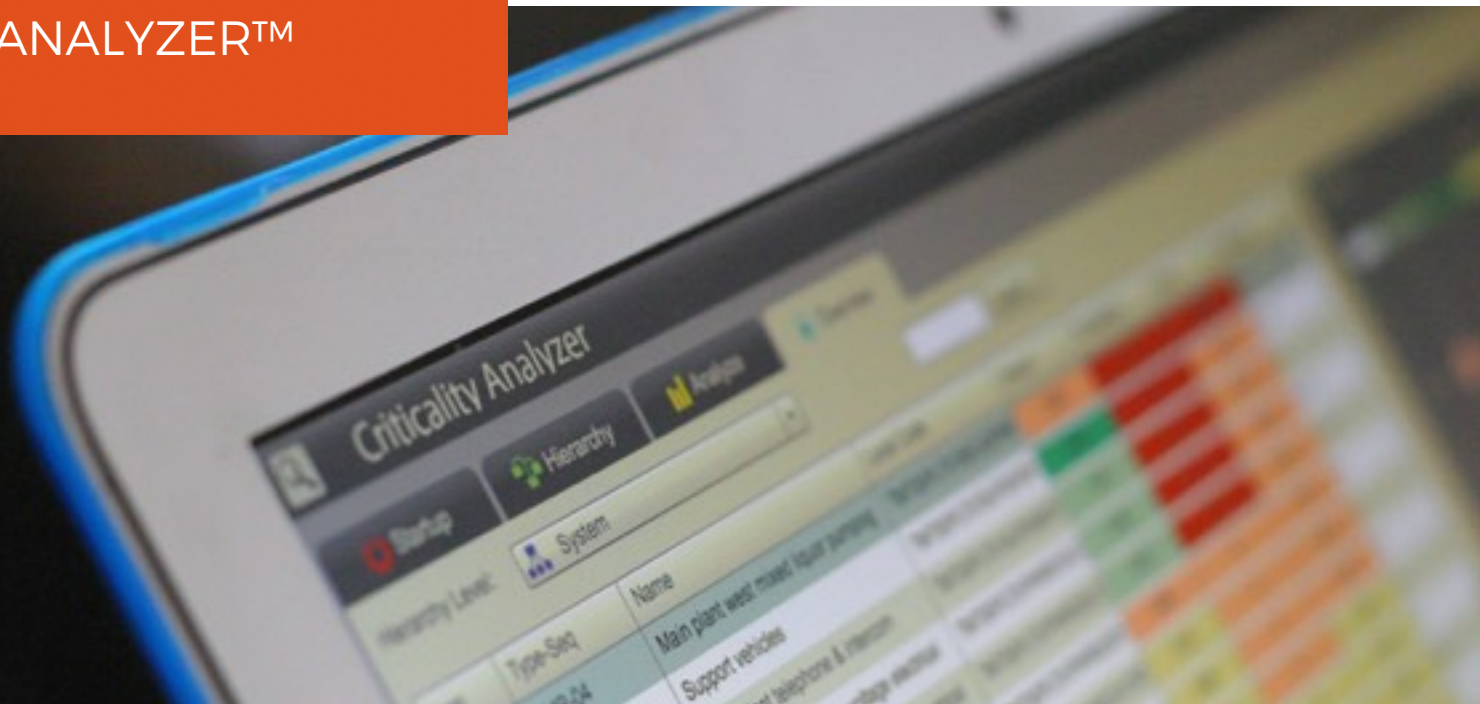
INQUIRY & ASSESSMENT

Asset Management Review

ISO55000 Gap Analysis

ALIGNMENT

Level of Service

Mission & Values

Stakeholder Identification

ASSET DATA

Asset Register

Asset Data Collection

Asset Type Codes

Failure Mode Library

Asset Hierarchy

Data Clean-up

Data Structure

CMMS/EAM Selection

Hierarchy Navigator™

CRITICALITY & RISK

Facilitated **Functional System Criticality Analysis™**

Criticality Analyzer™ Software

APPLICATION & STRATEGY

Asset Management Program Road Map

Mapping asset knowledge to priority Reliability & Maintenance activities

Planning for Asset Condition Assessments & Monitoring

CAPEX & OPEX Optimization

ISO55000 Audit Preparation/ Readiness

Asset management is the coordinated activity of an organization to realize value from assets.

Optimized Financials and Level of Service

AIM

Reserve and Underwriting Opportunities

Capital Planning Based on Criticality, RCM, and Modeling

Operational Management Optimization Based on System Risks, RCM, CM, Asset Types Analysis

PM Optimization on RCM/Critical Systems

Condition Monitoring on RCM/Critical Systems

RCM on Critical Systems

Condition Assessment on Critical Systems

Criticality Analysis on Functional Systems (FSCA™)

Asset Hierarchy Organized By Functional Systems and Asset Types

Complete Asset Register

AIM
[Revising Risk]

Organizational Alignment
Risk-Based Decision Making

Realized Value
Improved Risk Profile

OPTIMIZATION & PLANNING
[Mitigating Risk]

Risk-Informed Capital Planning
Balanced Short-term and Long-term Demands
Operational Improvement

ASSET STRATEGIES
[Managing Risk]

Whole Lifecycle Management
Targeted Resources
Balance of Cost, Risk and Performance

FOUNDATION
[Identifying Risk]

Increased Asset Knowledge
Knowledge Transfer

Documentation
Line of sight

CRITICALITY ANALYZER™

The Uberlytics Criticality Analyzer™ is an innovative and sophisticated priority ranking software tool, designed specifically to support a Functional System Criticality Analysis™ and to identify critical systems or processes in any complex facility or distributed asset operation.

Criticality Analyzer™ has more options for analysis, documentation, updating, and sensitivity analysis than any other software currently available. It also effortlessly handles FMEAs on key assets in critical systems. It is designed to develop, edit and display asset hierarchies to any number of levels and can uniquely promote and demote risk rankings up or down the hierarchy.

It is an Adobe Air application, using a SQL-lite database in the background, and is able to run independently alongside any existing CMMS.

EFFICIENT AND FUNCTIONAL

The software integrates smoothly with an overall physical asset management program and simplifies the challenge of performing a criticality analysis. You can move quickly from analysis to action, prioritizing work orders, capital spend, and risk-mitigating strategies, based on the revealed risk ranking of each system.

Documentation capabilities meet the robust requirements for any asset management program seeking to meet ISO55000 standards.

COMPREHENSIVE

Criticality Analyzer™ easily manages multiple complex parameters, combining them into an overall criticality & risk ranking.

EASY TO UNDERSTAND

Comprehensive and customized visuals are easy to understand, allowing you to quickly identify the most critical systems posing the greatest potential risk for your facility.
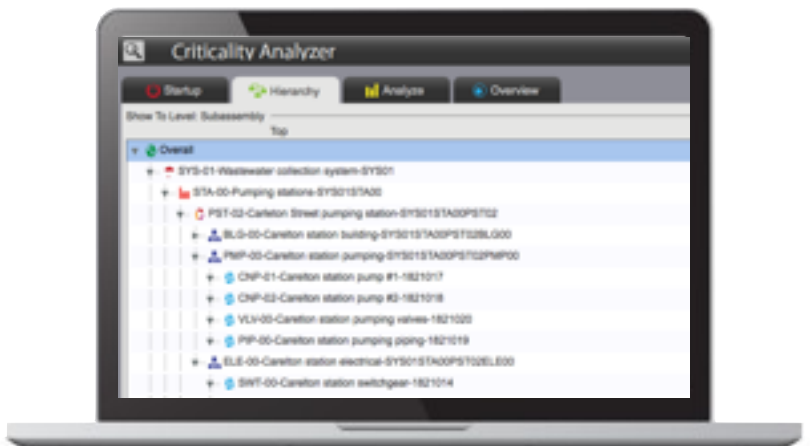
FLEXIBLE

CA™ can capture all risk factors and variables specific to your facility and has the industry unique ability to weight not only corporate values and and also separately emphasize impact and probaility scaling levels. It also easily import your asset taxonomy, or ISO standards like ISO 14224.

Hierarchies can be visualized, manipulated, edited, adn all results are easily exported and integrated back into any CMMS system.

PROVEN

Criticality Analyzer™ is built on an extensively field-tested and proven process with demonstrated positive bottom-line impact over the last decade.

FUNCTIONAL SYSTEM CRITICALITY ANALYSIS™

An Uberlytics Functional System Criticality Analysis™ enables:

- Transparent and consistent decision making

- Risk-based decision making grounded in asset knowledge

- Alignment of organizational and stakeholder objectives

- Connection of the long-term strategic view to daily tactical execution

Asset Management Aims

Criticality Analysis

Maintenance & Reliability Execution

CONNECTING AIM TO ACTION

Successful asset management depends on making good decisions: decisions about where to apply limited resources, setting priorities for maintenance and reliability, managing risk and more.

A criticality analysis is the most useful decision support tool for connecting strategic asset management aims to tactical initiatives and expenditures.

Understanding criticality and accurately identifying risk will align maintenance and reliability activities with the goals and priorities of a strategic asset management plan, under the constraints of limited budgets and resources.

FUNCTIONAL SYSTEM CRITICALITY ANALYSIS™ (FSCA™)

An Uberlytics Functional System Criticality Analysis™ starts with the big picture and traces critical network relationships to identify the most crucial component systems. From there we can drill down efficiently to the asset level - only critical systems contain critical assets. This approach dramatically reduces the time required to complete a critically analysis for an entire facility.

Your FSCA™ is tailored to your unique context and driven by your most important values, delivering a final analysis that is truly reflective of your operational constraints, with real mitigation items for your organization.

BENEFITS

- **Up to 5 times faster** than a conventional criticality analysis.

- Inclusion of 100% of systems and assets ensures **identification of previously unrecognized risk**.

- **More accurate and comprehensive relative risk-rankings** than a typical risk matrix exercise.

- The FSCA™ process cultivates **cross-disciplinary collaboration and agreement.**

- **Facilitates alignment** from the top of the organization to the shop floor.

A criticality analysis at the functional system level provides a unique business level analysis that sits at the **intersection** between corporate level asset management and field level tactical reliability and maintenance.

CRITICALITY ANALYSIS

A Powerful Catalyst for Cultural Change

A simple exercise supported by an exceptional tool becomes a powerful catalyst for bridging organizational silos and achieving necessary cultural change.

The first aim of a criticality analysis is to identify your most critical assets and uncover operational risk. Then you can target your resources to the most critical assets posing the highest risk to your operation. When you know what is critical you can make better risk-based decisions that lead to better outcomes for your asset management program.

But there is a bigger opportunity here. We have seen with our clients that this simple exercise, supported by Criticality Analyzer™, consistently delivers benefits that go far beyond just identifying critical assets.

Recently the Director of Asset Management at one of our clients commented that Uberlytics' Criticality Analysis has become **"a central catalyst in driving cultural change within our organization."** The analysis provided hard technical facts but also cultural benefits with their staff, establishing unanimous agreement across silos on what actually was critical, a renewed understanding of the challenges each silo faced, and a new or refreshed deep understanding on how the facility actually operates, its challenges and limitations, and how it is intended to meet the organizational goals. These elements are central to any serious group whose aim is to build a robust asset management program.

Additionally, the analysis is rigorous and thorough enough that many clients can move directly to maintenance strategy and PM optimization, risk mitigation and improved asset strategies, skipping more time intensive and costly analyses and exercises.

A criticality analysis truly can be a powerful catalyst for cultural change and can function as a quick start for establishing or renewing your asset management program.

- **Articulate and review your organizational mission and facility level of service performance objectives.**

- **Establish cross-functional teams and foster collaboration that can extend far beyond the analysis.**

- **Achieve agreement and alignment across organizational silos on critical priorities.**

- **Clearly identify risk to your business and rationalize your capital budget plan with those areas of risk.**

- **Document the decision-making process for future reference and review in line with ISO 55000 requirements.**

- **Capture institutional knowledge. (Knowledge transfer from an aging workforce is an urgent need for many of our clients.)**

- **Renew alignment of activities and tactical priorities with corporate goals and objectives.**

- **Renew understanding of facility performance objectives and challenges.**