

CERTIFIED RELIABILITY LEADER[®]

BLACK BELT PROGRAM



AMP
Association of Asset Management Professionals

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So many training programs are about “becoming” something. The Certified Reliability Leader is about “being” something; more specifically, a Reliability Leader.

Even though we are interested in transforming what you **think** about reliability, we are more interested in what you **do** about reliability.

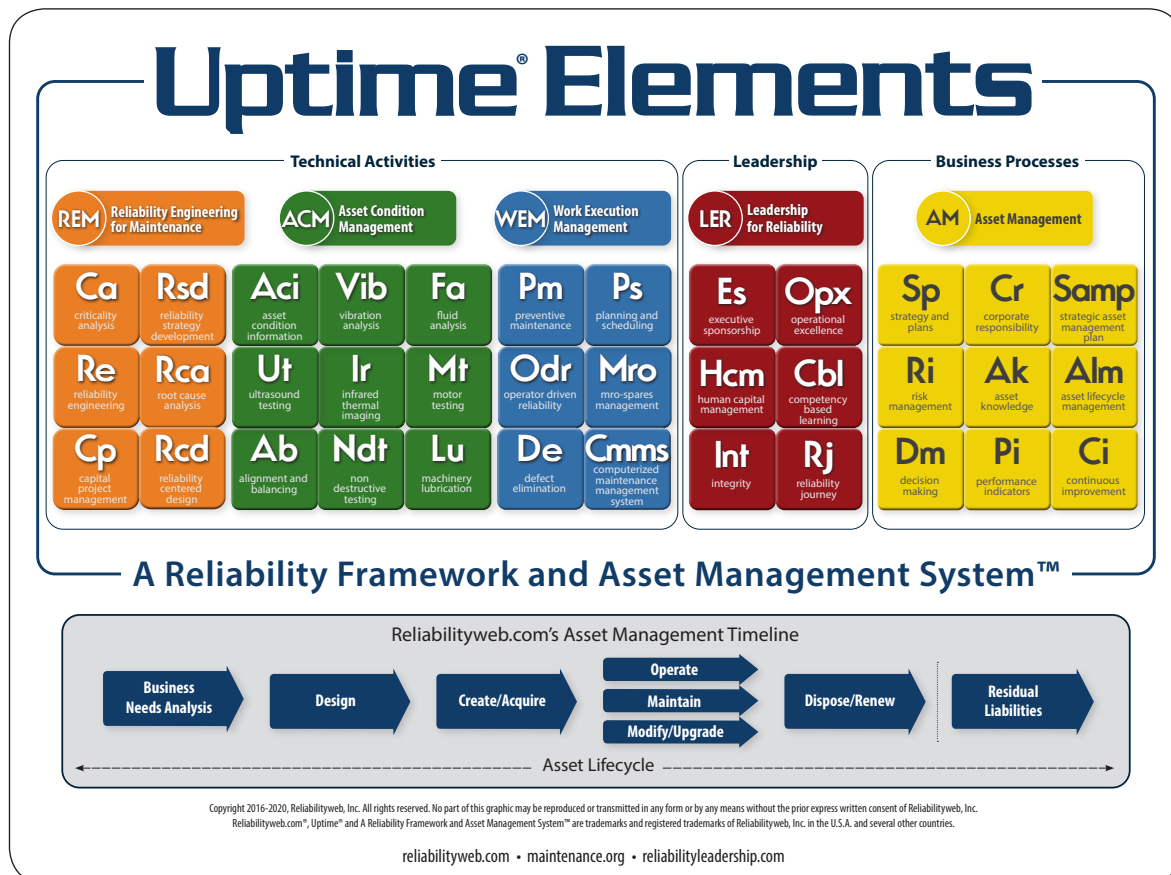
The only way to advance reliability and asset management is through *action*. That is the focus for the Black Belt Program. The Certified Reliability Leader Black Belt is designed to activate and apply what you learned during your reliability journey to make a safer, more successful workplace.

PROGRAM OVERVIEW

The CRL Black Belt Program is a results-oriented acknowledgment of significant and successful holistic reliability improvement projects delivered on a consistent basis.

The requirements for earning a CRL Black Belt are to submit a minimum of five (5) approved CRL Black Belt project applications along with their fully executed affidavit and verification forms (available by request) over a maximum of 36 months. A minimum of one (1) from each of the Uptime Elements knowledge domains listed below is required.

- Reliability Engineering for Maintenance • Asset Condition Management
- Work Execution Management • Leadership for Reliability • Asset Management



CRL Black Belt project applications and affidavit and verification forms must be submitted by an active Certified Reliability Leader® for each knowledge domain attesting to the successful outcomes generated by the project. CRL Black Belt project affidavit and verification forms must be signed by the following people in the applicant's organization:

- The Applicant who led the project
- The Applicant's Executive Sponsor
- The Applicant's Financial Verification Agent

CRL Black Belt project affidavit and verification forms must also be signed by the following people independent of the applicant's organization:

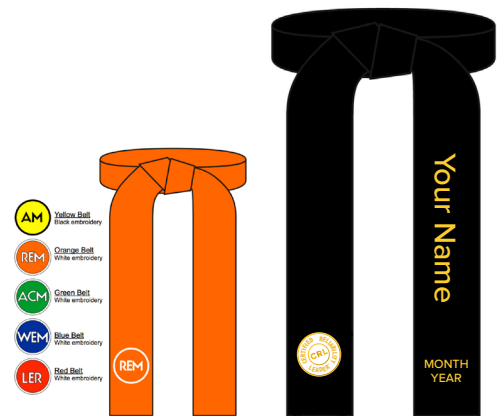
- Approved Reliability Partner (RP), Certified Reliability Leader* (CRL) who is a Subject Matter Expert (SME) in the project's knowledge domain (see website for RP listings)

**No fee will be charged for the approved RP CRL verification.*

Upon acceptance and approval, an appropriately embroidered Uptime Elements knowledge domain colored belt will be issued to recognize the completion of the project and continued progress made on the journey toward a CRL Black Belt.

- AM** Yellow Belt – Asset Management
- REM** Orange Belt – Reliability Engineering for Maintenance
- ACM** Green Belt – Asset Condition Management
- WEM** Blue Belt – Work Execution Management
- LER** Red Belt – Leadership for Reliability

Once 5 Uptime Elements knowledge domain belts have been earned and confirmed, the **Certified Reliability Leader Black Belt** will be issued at prescheduled ceremonies held at various locations and dates throughout the year. There is no additional cost for the CRL Black Belt once the 5 Uptime Element knowledge domain belts have been earned and issued.



There is NO limit on the number of Uptime Element knowledge domain belts earned by an individual or organization.

FREQUENTLY ASKED QUESTIONS



What is the Certified Reliability Leader Black Belt Program?

Uptime Elements is a reliability framework for generating improved asset performance while amplifying a sustainable reliability culture based on integrity and leadership. The Certified Reliability Leader designation offered by the Association of Asset Management Professionals (AMP) demonstrates that you are confident and competent in expressing Uptime Elements - A Reliability Framework and Asset Management System.

CRL Black Belt projects enable triple bottom-line outcomes of improving reliability and asset performance. You can earn an Uptime Elements knowledge domain belt by generating “significant” outcomes. Significant outcomes differ from organization to organization. Not every significant outcome translates to purely

economic factors. Almost any project that generates change that supports people in a verified performance improvement trend toward reliability is “significant” in our opinion. Our suggestion is to discuss your CRL Black Belt project with a Reliabilityweb.com team member or one of the Reliability Partners Subject Matter Experts (see www.reliabilityweb.com directory) for guidance and clarification.

Whether in manufacturing, processing, utility, infrastructure or service industries, such projects quantify the positive effects of changes. The goal of each successful CRL Black Belt Program is to generate significant improvements in reliability and asset performance. Over 3 years, multiple CRL Black Belt projects with a defect elimination focus will eliminate 54% of defects and 73% of defects over 6 years.

A CRL Black Belt project is one that uses appropriate strategies and tactics from the Uptime Elements Reliability Framework approach to generate breakthrough performance created by a sustainable reliability culture and delivers a real triple bottom-line benefit aligned to organizational objectives.

Reliability tools tend to be generic and rarely generate sustainable business success on their own. It is the ability to engage and empower cross-functional teams of reliability leaders who work aligned to the AIM of the organization that distinguish an CRL Black Belt Project from other improvement projects.

Economic impact, environmental impact and social/cultural impact as outcomes are also a requirement within a CRL Black Belt project when compared to other “improvement” projects that focus solely on economic return on investment.

What if I do not have a completed Certified Reliability Leader Black Belt project?

The CRL Black Belt Program is a result-oriented recognition program, and projects are a requirement. If you have not completed the minimum five required CRL Black Belt projects (one from each knowledge domain), you are not eligible to earn the CRL Black Belt.

What is an acceptable Certified Reliability Leader Black Belt project?

The following examples are not all-inclusive, but will provide examples of acceptable and unacceptable CRL Black Belt projects.

Examples of CRL Black Belt projects that qualify:

- Cross-Functional Defect Elimination Program
- Competency-based Learning Program for Uptime Elements Reliability Framework
- Ultrasonic Compressed Air and Steam Trap Leak Detection Energy Conservation Program
- Precision Lubrication Lifecycle Management
- PM Optimization Program
- Internet of Things Asset Condition Monitoring Program
- Drone-based Asset Condition Monitoring Program
- Any reliability or asset performance project with measured before-and-after benefits.

Projects that do not qualify:

- Projects with no alignment to organizational objectives or AIM
- Software implementations without detailed reliability improvement outcomes
- Reliability or asset performance projects without measured before-and-after benefits that align to organizational objectives or AIM

Q Who are Reliability Partners Subject Matter Experts (SME)?

Reliabilityweb.com supports a vibrant Community of Practice (CoP) for people and organizations that use Uptime Elements - A Reliability Framework and Asset Management System as a basis for reliability transformation. Among member companies are "Solution Providers" who map the delivery of their products, services and software to the Uptime Elements - A Reliability Framework and Asset Management System. We call them Reliability Partners (RP).

Each RP organization includes Certified Reliability Leaders (CRL) that are specially trained to advise, coach and mentor in support of CRL Black Belt projects. CRL Black Belt projects require a private, post-project validation meeting (can be telephone, web meeting or in-person at RLI face-to-face events, Reliabilityweb.com conferences and training events). The RP will sign-off on CRL Black Belt projects that meet the requirements. This meeting can be covered with a standard non-disclosure agreement, if required. RPs **DO NOT** charge a fee for this 30-60 minute advisory meeting.

Q Can I submit a project I completed more than two years ago?

No, projects results have to be generated and reportable within the past 12 months.

Q Do I need to send the original signed copy of my Certified Reliability Leader Black Belt project affidavit and verification form?

No, you may e-mail your signed affidavit to crm@maintenance.org within one week of submitting your completed application form.

Q I am unable to contact my Executive Sponsor or Financial Verifier or he/she is no longer employed at the company. What should I do?

It is your responsibility to have your Executive Sponsor or Financial Verifier complete and sign the project affidavit and verification form. Affidavits will not be accepted if they are not signed by an Executive Sponsor and Financial Verifier.

If you are unable to locate your Executive Sponsor or Financial Verifier, a member of upper management at your organization may sign the affidavit in your Executive Sponsor's or Financial Verifier's place, provided the individual is able to verify the contents of the application form are correct.

Q I did a Certified Reliability Leader Black Belt project at a company that I am no longer employed. What should I do?

You may fax or e-mail a copy of the CRL Black Belt project affidavit and verification form, signed by you and the independent RP CRL SME, to your past Executive Sponsor and/or your past Financial Verifier. Please then have them send the signed affidavit form directly to Reliabilityweb.com:

Mail: 8991 Daniels Center Drive, Attn: Black Belt Project, Suite 105, Fort Myers, FL 33912

Tel: (239) 963-8928 E-mail: crm@maintenance.org

Where can I find support for implementing Uptime Elements Reliability Framework?

Reliabilityweb.com encourages organizations that are seriously committed to reliability transformation to consider joining the Reliability Leadership Institute® (RLI) Community of Practice (CoP). This action-oriented community includes at least 5 active participants from each member company for the roles of:

1. Board of Advisor Leader
2. Implementation Champion
3. Competency Champion
4. Assessment/Benchmarking/Performance Champion
5. Online Administrator/Internal Technical Support Champion

RLI Contributing Members, RLI Sustainable Members, and Reliability Partners also receive a 25% discount on the \$200 Black Belt application fee.

Each participant is expected to engage in 4 Uptime Element Black Belt projects (3-Month Orbits) per year and share progress, challenges and results in secure, private monthly web-based meetings.

This concentrates lessons learned and reduces the Plan-Do-Check-Act cycle time immensely.

As previously mentioned, the Reliability Leadership Institute also includes a Community of Practice of Reliability Partners (Solution Providers). This supplier network of Certified Reliability Leaders includes top-notch talent in almost every topic covered by Uptime Elements Reliability Framework.

A directory of RPs can be found in the online directory at www.reliabilityweb.com.

What are the benefits?

There are few personnel that can be devoted to reliability leadership full-time. However, with enough Certified Reliability Leaders in an organization, a reliability culture will develop through natural self-expression. A minimum of 3 CRL Black Belts per 1,000 employees is recommended.

CRL Black Belts are highly prized employees and are often recruited for key management positions elsewhere in the company. After a CRL Black Belt has been in place for three or more years, former CRL Black Belts and Certified Reliability Leaders populate a sufficient number of key positions in the organization to change the organization's DNA. In other words, a reliability leadership culture starts to dominate.

Estimated savings per project varies from organization to organization. Reported results average about US\$150,000 to US\$250,000. Our estimate is that the average CRL Black Belt Program will produce a net benefit of around US\$200,000 in mature programs, but we have seen a single project in a new CRL Black Belt Program net as much as US\$2.5 million.

Think small when it comes to CRL Black Belt projects. We are not suggesting huge mega-projects, because such large projects tend to have a high failure rate. Most CRL Black Belt projects involve significant environmental, cultural and social benefits, as well.

For a company with 1,000 employees, the numbers would look something like this:

1. Certified Reliability Leader Black Belts: 3
2. Certified Reliability Leaders: 30
3. Certified Reliability Leader Black Belt Programs: 12

4. Certified Reliability Leader Projects: 30 (minimum)
5. Certified Reliability Leader Black Belt Projects (conservative): 42 with US\$50,000-US\$100,00 per project benefits
6. Conservative estimated saving: US\$2,100,000-US\$4,200,000 (US\$21,000-US\$42,000 per employee)
7. Calculation does not include cultural benefit, safety benefit, environmental benefit, social benefit or employee retention benefit.

These are extremely conservative numbers. Do the math for your organization and see what CRL Black Belts and Certified Reliability Leaders can do for you. CRL Black Belt project savings and contributions flow directly to your company's bottom line.

Why implementation of Uptime Elements?

After three decades of experience with reliability improvement, there is now a solid body of scientific research regarding the experience of thousands of companies implementing major reliability programs. Our work has found that successful deployment of Uptime Elements - A Reliability Framework and Asset Management System involves focusing on a small number of high-leverage items.

How do I obtain Executive Sponsorship?

Successful reliability improvement works better and faster when it begins with top management. Start by providing senior leadership with an executive focused Uptime Elements - A Reliability Framework and Asset Management System training in the principles and tools they need to prepare their organization for success. Using their newly acquired knowledge, top management directs the creation of a management infrastructure to support Uptime Elements. Simultaneously, steps are taken to “soft-wire” the organization and to cultivate an environment for innovation and creativity. This involves reducing levels of organizational hierarchy, removing procedural barriers to experimentation and change, and a variety of other changes designed to make it easier to try new things without fear of reprisal for failure.

Note: If Executive Sponsorship is NOT possible or forthcoming, you do not have to wait for permission or sponsorship. People who take a stand and act with integrity make the reliability leadership journey. Begin today, even if you lack executive sponsorship.

1. Systems are developed for establishing close communication with cross-functional stakeholders who can enable (or disable) reliability and asset performance including maintenance, operations, purchasing, HR, IT, engineering, customers, employees, and suppliers.
2. Competency needs are rigorously assessed in partnership between HR, training department and Certified Reliability Leaders. Basic reliability leadership courses including interactive exercises are provided to ensure that all employees possess adequate levels of understanding of Uptime Elements Reliability Framework awareness. Top-to-bottom training is conducted in systems improvement tools, techniques, and philosophies.
3. A framework for continuous reliability improvement is developed, along with a system of indicators for monitoring progress and success. Uptime Elements metrics focus on the organization's objectives, drivers, and alignment to the AIM.
4. Business processes to be improved are chosen in collaboration with management, and by people with intimate reliability knowledge at all levels of the organization. CRL Black Belt projects are conducted to improve business performance linked to measurable outcomes. This requires knowledge of the organization's constraints.

RESOURCES

5. CRL Black Belt projects are conducted by individual employees and teams lead by CRL Black Belts (or Certified Reliability Leaders who are seeking the CRL Black Belt) and assisted by Certified Reliability Leaders; however, CRL Black Belts are only issued to one individual per project.



How hard is the Certified Reliability Leader Black Belt to achieve?

Reads Simple – Does Hard! Although the approach is simple, it is by no means easy. But the results justify the effort expended.

RESOURCES

Websites

Become a Certified Reliability Leader and help us make the world a better place. More details are available here: <http://www.maintenance.org/pages/crl>

Videos

To learn a more about the Uptime Elements Framework, visit (a lot of wisdom being shared in these videos):

- <http://reliabilityweb.com/videos/article/creating-momentum-for-change>
- http://reliabilityweb.com/videos/article/what_it_means_to_be_a_crl
- <http://reliabilityweb.com/videos/article/mapping-the-uptime-elements-to-your-asset-performance-management-process>
- <http://reliabilityweb.com/videos/article/uptime-elements-global-sustainability-programs>

ARE YOU READY TO JOIN THE RELIABILITY REVOLUTION?

For further information or clarification about the Certified Reliability Leader Black Belt Program, please feel free to contact us: crm@maintenance.org or **(239) 963-8928**



The first Certified Reliability Leader Black Belt recipients: George Williams and Joseph Anderson, *B. Braun Medical*



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