

Effective Solutions to Everyday Problems Every Time™

#### What is Apollo RCA™

The Apollo Root Cause Analysis™ – ARCA™ methodology was originally developed in the mid 1980's by Dean L. Gano as a result of his inability to find an effective method for solving safety problems encountered in his position within the nuclear power industry. While several problem-solving methods were available at the time, none were proven to be consistently effective.

After its initial introduction, interest in the ARCA™ was sparked within heavy industry as organizations sought a simple, structured, yet highly effective method for solving manufacturing, reliability and EH&S issues. Continued interest led to the creation of Apollonian Publications LLC and RealityCharting - training, investigation and consulting firm.

Since that time, ARCA™ has continued to evolve and advance with our most recent introduction of RealityCharting® Software. Presently ARCA™ is utilized in many diverse industries and organizations across the globe and taught in several languages. Each year, thousands of students from widely diverse backgrounds and industry are trained in ARCA™ to generate improvements, eliminate defects, prevent issues, and provide value to their organizations. No other Problem Solving course combines the analysis of critical thinking with the creative process so that effective solutions are found almost every time.

#### **Benefits of Attending**

Only 30% of workers have been found to be effective problem solvers. In every endeavor, success depends directly upon our ability to solve problems. Some people are better at solving problems than others. What makes them successful? Successful problem solvers identify solutions that control one or more of the causes of the problem. Problems are nothing more (or than systems of cause and effect relationships. If you cannot clearly show how the problem occurred, how do you expect to resolve it, or better yet eliminate it? Training people to use ARCA™ helps them understand the way causes interrelate. Identifying cause and effect relationships makes finding solutions easier and more effective. Attend this Workshop and learn the secrets of highly effective Problem Solvers.

#### ARCA™ IS A NEW WAY OF THINKING

- ✓ Does not use a checklist or categories!
- ✓ A very simple effective methodology!
- ✓ Use it on any problem, anytime, anywhere, personal or professional!

#### What our clients are saying?

"I like the way you expanded my mind with a simple structured method, rather than trying to change it"

"This will help our self-directed work teams be much more effective in determining corrective and preventive actions"

"I have three PhD's, I am 55 years old, and this is the best training I have ever had"

"A must know methodology to our Six-Sigma/Lean Six-Sigma initiative and added tool to our BB's and MBB's"

"One of the best training courses I have ever taken!"



#### Introduction

In every human endeavor, the ability to solve problems effectively is fundamental to one's success. Unfortunately, only about 20% of the populations are effective problem solvers. In industries with high performing culture, this number jumps to about 30%, which still leaves 70% of our workers in the fog when it comes to effective problem solving. If your job does not involve solving problems, this is not an issue. But which job does not involve problem solving or decision making, daily? With self-directed work teams, and other management strategies to move the decision making process lower in the organization, effective problem solving has become a must for many employees. Without knowledge, tools and methodology necessary to find effective solutions to daily work problems, employees are being set up to

Solving day-to-day problems is an extremely simple process. Day-to-day problems start out with a Primary Effect of consequence and ends with an Effective Solution which we act upon to accomplish our goals. To ensure we have an Effective Solution, we must know the Cause and Effect relationship that exists between our problem and our solutions. By first defining the problem and then concentrating on evidence based causes, ARCA™ methodology opens up communications and replaces opinion based arguments with clear (common reality) cause and effect relationships using RealityCharting® software or thru simple visual like posted notes. ARCA™ removes the hidden agendas, the power players, and most importantly the blame placers and helps place solutions on causes.

As our proven Continuous Improvement Program and ARCA™ are incorporated by everyone in the organization, analysis and investigation times are significantly reduced, the number of incident reports decline significantly and problems are prevented, hence reducing your Cost of Quality.

Our comprehensive ARCA™ training program includes training for: Executives, Continuous Improvement Leaders, Managers, RCA Leaders, Practitioners and Participants. When everyone understands the concepts, day-to-day problems are solved at the lowest level in the organization, and significant problems are handled quicker and more effectively. Feedback from our clients indicate we have improved their safety record, eliminated repeat defects, and saved them millions of dollars in operating costs and hidden Cost of Quality.

### **ARCA™ Applications**

By Industry		By Functions	
•	Aerospace	•	Accounting
•	Computer Hardware	•	Customer Service
•	Computer Software	•	Environmental
•	Construction	•	Human Resources
•	Consulting	•	Information Technology
•	Defense	•	Labor Relations
•	Education	•	Legal Services
•	Financial Services	•	Logistics
•	Government	•	Production/Operations
•	Healthcare	•	Product/Process Failures
•	Insurance	•	Project Management
•	Manufacturing	•	Quality Assurance
•	Metals and Mining	•	Maintenance & Reliability
•	Mining	•	Research & Development
•	Municipal Government	•	Safety
•	Petrochemical	•	Sales and Marketing
•	Pharm aceuticals	•	Supply Chain
•	Power Generation		



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#### **202 Facilitator Course Description**

This course exposes common characteristics of ineffective problem solving so Practitioners or Facilitators can recognize and prevent the analysis team – RCA Participants - from falling into non-value added discussions to help them get to effective solutions.

Analysis Cycle and Quality are key factors. Practitioners learn the concepts of effective ARCA™ and incident analysis including establishing problem definition, problem significant and value, building a common reality chart for all stakeholders through the ARCA™ cause and effect charting process, including generating effective solutions and reporting.

Students are challenged with exercises that accurately portray common workplace problems, including role-playing group activities in which they perform an actual ARCA<sup>TM</sup> case study.

#### **ARCA™ Applications Examples**

#### When the email server goes down, is Information Technology the only department affected adversely?

No, many departments could be affected and each in a different way. And who knows why the server is down in the first place? The problem may have originated in the marketing department when an intern overloaded the system by sending 10,000 emails concurrently. Does the I.T. department own this problem? Usually it would ... but they certainly aren't in this mess by themselves. Regardless of the problem specifics, their job is a lot easier when they have a universal methodology that allows them to move quickly to resolution and communicate the results to all those affected.

## When an employee is injured on the shop floor, is the problem localized to the Safety team?

Not normally. The injury that may have resulted from an unsafe act notwithstanding, there are typically many other elements that could have led to the event. Production may have had to work around a procedure to meet a new customer demand. A piece of equipment may not have been maintained properly because of budgetary constraints. Or the individual may have been working significant overtime due to unfilled staff positions. The investigation of the injury may lead investigators to areas in the company that, on the surface, seemed to have nothing at all to do with the incident but are in fact causes that need to be acted on.

# When a customer finds an escaping quality defect, does that defect reside only within the Quality Assurance department?

Perhaps the task of resolving the customer's complaint resides with Quality Assurance, but what if there were other such parts already delivered and in operation? Wouldn't the customer want to check those parts as well? How did we miss the defect before shipping? Why did we produce a defective product? Quality Assurance is on the hook to answer these questions, and many others. But the investigation could take them to other areas in the plant or even to one of their suppliers. Supply chain problems cross many boundaries, internal and external.

Teams solving problems like this benefit greatly by using ARCA™. Because they can communicate complex concepts to diverse groups of people more simply than they ever could have before, accurately and quickly.