

FAQS for Potential RIAC Data Contributors

Question: What types of reliability data are needed by the Reliability Information Analysis Center (RIAC)?

Answer:

Component failure rate data, based on hours/cycles/miles/rounds, that includes (1) the number of operating, dormancy or cycling life units, (2) the number of items in the population, (3) the number of failures, and (4) appropriate corresponding quality levels, environments, duty cycles. Data can be from actual field experience, or from component life testing. RIAC can provide a PDF document that lists all of the preferred life test types.

The RIAC is also looking for component failure mode and failure mechanism data. This information can be associated with the failures provided as part of the data submittals described above, or it can represent the results of root cause failure analysis performed on failures of any type.

Question: To what level is the data needed?

Answer:

Component level data is always preferred, but module/assembly data (accompanied by a suitable Bill of Materials or Parts List) may also be acceptable. Contact RIAC for more details.

Question: How does the RIAC protect the sensitivity of data that is contributed?

Answer:

The RIAC protects the sensitivity of contributed data through the use of formal Nondisclosure Agreements (NDAs), which are structured to specifically define what elements of the submitted data are to be kept proprietary, and for what period of time. In addition, RIAC employee conduct is governed by formal confidentiality agreements.

Question: How is the contributed data used?

Answer:

Data that is provided to the RIAC is used in several ways. It supports popular and widely-used RIAC data publications such as Nonelectronic Parts Reliability Data (NPRD), Electronic Parts Reliability Data (EPRD) and Failure Mode/Mechanism Distributions (FMD). It is also used to support the development of failure rate prediction models such as those in the RIAC 217Plus System Reliability Assessment methodology, and in efforts to support updates to MIL-HDBK-217 models.

Question: Will users of RIAC Products and Services be aware of the source(s) of RIAC data?

Answer:

Not unless you want them to be. Through the NDAs described above, you can elect to protect proprietary information such as the name of the manufacturer, the system or equipment that the data was taken from, the part number, i.e., anything that may be traceable back to information that you do not want the RIAC user to see. Of course, the ability to identify

reputable sources provides credibility to the data that the RIAC receives, and provides public recognition to valuable contributors to RIAC and the field of reliability.

Question: Will the users of RIAC Products and Services be able to draw conclusions from contributed data regarding the reliability of contributors' products?

Answer:

No. The data disclosed through RIAC publications, tools and models is "sanitized" based on the proprietary restrictions defined in the NDA to eliminate the ability to draw conclusions about the reliability of a contributor's products.

Question: Will the users of RIAC Products and Services be able to draw conclusions from contributed data regarding the contributors' customers or the reliability of their customers' products?

Answer:

No (see above). The RIAC will ensure, as part of its "sanitizing" of the data, that no information is publicized that will allow conclusions to be drawn about the contributors' customers or the reliability of their customers' products.

Question: Are there any costs to the contributor associated with submitting data to the RIAC?

Answer:

There are no costs charged by the RIAC for submitting data. However, data submitted by a specific organization can, through a contributor-funded effort, be used by the RIAC to assist that organization in developing its own failure rate models.

Question: What does the contributing organization get out of contributing data?

Answer:

The RIAC does not provide financial compensation for contributed data. In general, contributors submit data so that their "voices" can be heard in the reliability community, particularly in relation to having "their" data represented in the development of reliability models. If a data contributor can offer significant amounts of relevant data, on either a one-time or recurring basis, the RIAC can establish a quid pro quo arrangement on a case-by-case basis.

Question: What's the desired format for submitting data?

Answer:

The RIAC provides flexibility to potential data contributors to encourage their participation. As such, the RIAC accepts data in any of the following formats:

- ASCII-delimited files (comma, tab, etc.)
- MS Excel spreadsheets (if less than ~ 65,000 data records)
- MS Word tables
- MS Databases (SQL or Access)

The RIAC provides a data schema to the contributor that defines the specific data elements that we collect for each data record submitted. The schema is set up to help ensure that submitted data reflects the highest quality at minimal contributor effort.