



Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback)

By Peter H. Feiler, David P. Gluch

Download now

Read Online ➔

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch

Conventional build-then-test practices are making today's embedded, software-reliant systems unaffordable to build. In response, more than thirty leading industrial organizations have joined SAE (formerly, the Society of Automotive Engineers) to define the SAE Architecture Analysis & Design Language (AADL) AS-5506 Standard, a rigorous and extensible foundation for model-based engineering analysis practices that encompass software system design, integration, and assurance. Using AADL, you can conduct lightweight and rigorous analyses of critical real-time factors such as performance, dependability, security, and data integrity. You can integrate additional established and custom analysis/specification techniques into your engineering environment, developing a fully unified architecture model that makes it easier to build reliable systems that meet customer expectations.

Model-Based Engineering with AADL is the first guide to using this new international standard to optimize your development processes. Coauthored by Peter H. Feiler, the standard's author and technical lead, this introductory reference and tutorial is ideal for self-directed learning or classroom instruction, and is an excellent reference for practitioners, including architects, developers, integrators, validators, certifiers, first-level technical leaders, and project managers. Packed with real-world examples, it introduces all aspects of the AADL notation as part of an architecture-centric, model-based engineering approach to discovering embedded software systems problems earlier, when they cost less to solve. Throughout, the authors compare AADL to other modeling notations and approaches, while presenting the language via a complete case study: the development and analysis of a realistic example system through repeated refinement and analysis.

Part One introduces both the AADL language and core Model-Based Engineering (MBE) practices, explaining basic software systems modeling and analysis in the context of an example system, and offering practical guidelines

for effectively applying AADL.

Part Two describes the characteristics of each AADL element, including their representations, applicability, and constraints.

The Appendix includes comprehensive listings of AADL language elements, properties incorporated in the AADL standard, and a description of the book's example system.

 [Download Model-Based Engineering with AADL: An Introduction
...pdf](#)

 [Read Online Model-Based Engineering with AADL: An Introducti
...pdf](#)

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback)

By Peter H. Feiler, David P. Gluch

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch

Conventional build-then-test practices are making today's embedded, software-reliant systems unaffordable to build. In response, more than thirty leading industrial organizations have joined SAE (formerly, the Society of Automotive Engineers) to define the SAE Architecture Analysis & Design Language (AADL) AS-5506 Standard, a rigorous and extensible foundation for model-based engineering analysis practices that encompass software system design, integration, and assurance. Using AADL, you can conduct lightweight and rigorous analyses of critical real-time factors such as performance, dependability, security, and data integrity. You can integrate additional established and custom analysis/specification techniques into your engineering environment, developing a fully unified architecture model that makes it easier to build reliable systems that meet customer expectations.

Model-Based Engineering with AADL is the first guide to using this new international standard to optimize your development processes. Coauthored by Peter H. Feiler, the standard's author and technical lead, this introductory reference and tutorial is ideal for self-directed learning or classroom instruction, and is an excellent reference for practitioners, including architects, developers, integrators, validators, certifiers, first-level technical leaders, and project managers. Packed with real-world examples, it introduces all aspects of the AADL notation as part of an architecture-centric, model-based engineering approach to discovering embedded software systems problems earlier, when they cost less to solve. Throughout, the authors compare AADL to other modeling notations and approaches, while presenting the language via a complete case study: the development and analysis of a realistic example system through repeated refinement and analysis.

Part One introduces both the AADL language and core Model-Based Engineering (MBE) practices, explaining basic software systems modeling and analysis in the context of an example system, and offering practical guidelines for effectively applying AADL.

Part Two describes the characteristics of each AADL element, including their representations, applicability, and constraints.

The Appendix includes comprehensive listings of AADL language elements, properties incorporated in the AADL standard, and a description of the book's example system.

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch Bibliography

- Rank: #2540256 in Books
- Published on: 2012-10-05
- Original language: English

- Number of items: 1
- Dimensions: 8.90" h x 1.10" w x 6.90" l, .0 pounds
- Binding: Paperback
- 480 pages

 [Download Model-Based Engineering with AADL: An Introduction ...pdf](#)

 [Read Online Model-Based Engineering with AADL: An Introducti ...pdf](#)

Editorial Review

About the Author

Peter H. Feiler, senior member of technical staff at the Software Engineering Institute (SEI), is technical lead and author of the SAE AADL standard. In his 27 years at the SEI he has worked on software development environments, configuration management, and real-time embedded systems. He has collaborated with the research community and has applied resulting technologies such as AADL with customers in avionics, space, and automotive industries, as well as government programs.

David P. Gluch, formerly senior member of the technical staff at SEI and now a visiting scientist there, is a professor of software engineering at Embry-Riddle Aeronautical University. He has held key engineering and technical management positions with high-tech firms where he developed real-time software-intensive systems for commercial fly-by-wire aircraft control, automated process control, and the Space Shuttle.

Users Review

From reader reviews:

Dan Williams:

As people who live in the modest era should be change about what going on or details even knowledge to make all of them keep up with the era and that is always change and move ahead. Some of you maybe will probably update themselves by reading through books. It is a good choice for yourself but the problems coming to anyone is you don't know which one you should start with. This Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) is our recommendation to help you keep up with the world. Why, because book serves what you want and want in this era.

Richard Vazquez:

Nowadays reading books become more than want or need but also get a life style. This reading addiction give you lot of advantages. Advantages you got of course the knowledge the rest of the information inside the book this improve your knowledge and information. The info you get based on what kind of guide you read, if you want get more knowledge just go with schooling books but if you want truly feel happy read one along with theme for entertaining for instance comic or novel. The Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) is kind of guide which is giving the reader unpredictable experience.

Corey Barksdale:

Reading a book tends to be new life style on this era globalization. With reading through you can get a lot of

information that can give you benefit in your life. Having book everyone in this world may share their idea. Textbooks can also inspire a lot of people. Plenty of author can inspire their particular reader with their story or perhaps their experience. Not only the story that share in the publications. But also they write about advantage about something that you need example of this. How to get the good score toefl, or how to teach your young ones, there are many kinds of book that exist now. The authors nowadays always try to improve their proficiency in writing, they also doing some study before they write to their book. One of them is this Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback).

Junior Price:

In this particular era which is the greater man or woman or who has ability to do something more are more treasured than other. Do you want to become one among it? It is just simple method to have that. What you need to do is just spending your time not much but quite enough to get a look at some books. One of several books in the top list in your reading list is Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback). This book that is qualified as The Hungry Mountains can get you closer in getting precious person. By looking right up and review this e-book you can get many advantages.

**Download and Read Online Model-Based Engineering with AADL:
An Introduction to the SAE Architecture Analysis & Design
Language (paperback) By Peter H. Feiler, David P. Gluch
#VAUPCZNX2O6**

Read Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch for online ebook

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch books to read online.

Online Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch ebook PDF download

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch Doc

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch Mobipocket

Model-Based Engineering with AADL: An Introduction to the SAE Architecture Analysis & Design Language (paperback) By Peter H. Feiler, David P. Gluch EPub