Could You start me off, please?

Sure, I can offer ready templates (high-level goal-models) that accommodate your needs.

What about the components of my system?

Do not worry, you can import their low-level models from the GOPCSD library.

What do I have to do now?

Do I need much effort to formalise the goal-model?

Can I check my goal-model as I am building it?

Sure, I can offer Reasoning and Investigation tools.

What components of my system?

For that sounds good. But after my requirements model is satisfactory, I do not know much about B.

No worry, I’ll automatically generate B machines.

Now, I can take over. The stage is just ready for me.

Can I generate alternative goal-models?

Yes! You can use alternative pattern and then the tool can split the compound goal-model into a number of independent goal-models.

What next!

Keep the goal model for future access. You’ll probably extend/maintain your system.

The created B machines are documented by tracing them to the informal Requirements.

Mo del sub-systems
Hierarchical Testing
Library Templates for Fault Detection
Goal-models for existing Specifications
Generating PLC code

MY MAIN FEATURES

Separation of concerns

Reuse Library

Component based

Tests and validation

Hidden Formal details

Goal driven Design

MY WISH LIST

Wonderful! Am I done now?

I will highlight the suspect goals and guide you through what you could do.

Do you have any clue as how to remove the detected bugs?

I wish there was a way for the tool to tell me how the system will behave at runtime.

Do you not need to check the consistency and completeness of your requirements?

Not really, the Requirements Analysis have not started yet. Let’s use Obstacle Analysis to predict any unplanned problems.

The GOPCSD Development Environment

The GOPCSD Library Manager

The GO P C S D Library
[ van Lamsweerde et al. 91]

Process Control Systems Engineer

Phase I
Goal-oriented Requirements Construction

Phase II
Requirements Checking and Validation

Phase III
Goal-model to B translator (Adria 95)

B Toolkit or similar Envirenment

Software Engineer

Dynamic
Goal-model
Library

KAOS+

MY MAIN FEATURES

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