

What is claimed is:

1. A method for generating a dynamic function embedded within a chip, wherein said chip comprises a plurality of a building blocks, a first dynamic function, and a specification
5 defining said dynamic function; the method comprising the steps of:
within said chip, activating said first dynamic function in accordance with said specification; and
within said chip, generating said dynamic function upon said activating said first dynamic function.
- 10 2. The method of claim 1 further comprising the steps of: within said chip analyzing an aspect of said chip, within said chip determining results of said analysis; and within said chip modifying architecture of said chip in accordance with said results.
3. The method of claim 2 wherein said aspect being one member of a group consisting of security, performance, usability, reliability environment and maintainability.
- 15 4. The method of claim 2 further comprising the step of: within said chip challenging said chip, wherein said challenging being related to at least one member of a group consisting of a security aspect of said chip, a performance aspect of said chip, a usability aspect of said chip, a reliability aspect of said chip, an environment aspect of said chip and maintainability aspect of said chip.
- 20 5. The method of claim 2 wherein said analyzing being performed by a dynamic function within said chip.
6. A method for modifying an environment of an electronic entity ; wherein said electronic entity having a connectivity with a chip; the method comprising the steps of:
within said chip, challenging said electronic entity;
25 within said chip, analyzing results of said challenging and providing analysis-results;
and
within said chip, modifying said environment of said electronic entity with accordance to said analysis-results.
7. The method of claim 6, wherein said electronic entity being one member of a
30 group consisting of a sensor and an A/D convertor.
8. A security module; wherein said security module having a connectivity with an electronic entity for securing said electronic entity; wherein an architecture of said security module being changed according to an analysis of a security aspect of said security module; thereby securing said security modules by said security module.

9. The security module of claim 8, wherein said security module being one member of a group consisting of a Vault and a cryptology module.

10. A method for modifying a connectivity between a dynamic function embedded in a chip and an electronic entity; the method comprising the steps of

5 within said chip, challenging said connectivity;

within said chip, analyzing results of said challenging and providing analysis-results;

and

within said chip, modifying said connectivity, in accordance with said analysis-results.

11. The method of claim 10, wherein said dynamic function being an arbitrator.

10 12. The method of claim 10, wherein said electronic entity being one member of a group consisting of a peripheral, a decoder, a bridge and a bus system and an arbitrator.

13. A method for generating a dynamic function within a chip, wherein said chip comprises a plurality of building blocks, a first dynamic function, and a specification defining said dynamic function; the method comprising the steps of:

15 within said chip challenging said specification and providing a second specification;

within said chip, activating said first dynamic function in accordance with said specification; and

within said chip, generating said dynamic function upon said activating said first dynamic function.

20 14. A method, for generating a first dynamic function within a chip, said method comprising the steps of:

generating a building block product by a dynamic function embedded in said chip; wherein said dynamic function comprises at least one building block; and

25 deactivating said dynamic function as a result of said generating; wherein said at least one building block are being available for generating a second dynamic function.

15. The method of claim 14, further comprising the steps of utilizing said at least one building block for generating said second dynamic function.

30 16. An electronic entity said electronic entity comprises a plurality of building blocks, a first dynamic function, and a specification defining a new dynamic function; wherein said electronic entity being adapted for activating said first function in accordance with said specification and for generating a new dynamic function upon said activating said first function.

35 17. An electronic entity said electronic entity comprising a dynamic function; said electronic entity being configured for challenging said dynamic function for providing challenging-results, for analyzing said challenging-results and providing analysis-results; and for modifying architecture of said dynamic function in accordance with said analysis-results.

18. The electronic entity of claim 17, wherein said dynamic function being a hardware function or software function.

19. The electronic entity of claim 17, wherein said analysis being real time and secured analysis.

5 20. An electronic entity; said electronic entity comprising a dynamic function; said electronic entity being configured for analyzing a security aspect associated with said dynamic function and providing a result, and for modifying an architecture of said dynamic function in accordance with said result.

10 21. A method for modifying architecture of a chip; the method comprises the steps of :

within said chip analyzing an aspect of said chip,

within said chip determining results of said analysis; and

within said chip modifying architecture of said chip in accordance with said results.

15 22. The method of claim 21 wherein said aspect being one member of a group consisting of security, performance, usability, reliability ,environment and maintainability

23. The method of claim 1, wherein said building block being a dynamic building block.

What is claimed is:

1. A method for generating or modifying a dynamic function embedded within an integrated circuit, wherein said integrated circuit comprises a plurality of building blocks, a first dynamic function, and a specification defining said dynamic function; the method comprising the steps of:
 - within said integrated circuit, activating said first dynamic function in accordance with said specification; and
 - within said integrated circuit, generating or modifying said dynamic function upon said activating said first dynamic function.
2. The method of claim 1, further comprising the step of: within said integrated circuit analyzing an aspect of said integrated circuit, wherein said aspect being one member of a group consisting of a security aspect of said integrated circuit, a functionality aspect of said integrated circuit, a performance aspect of said integrated circuit, a usability aspect of said integrated circuit, a reliability aspect of said integrated circuit, an environment aspect of said integrated circuit, hardware aspect of said integrated circuit, software aspect of said integrated circuit and maintainability aspect of said integrated circuit.
3. A method for generating or modifying an architecture of an electronic entity ; the method comprising the steps of:
 - within a integrated circuit, analyzing an aspect of said electronic entity; wherein said electronic entity having connectivity with said integrated circuit; wherein said aspect being one member of a group consisting of a security aspect of said integrated circuit, a functionality aspect of said integrated circuit, a performance aspect of said integrated circuit, a usability aspect of said integrated circuit, a reliability aspect of said integrated circuit, an environment aspect of said integrated circuit, hardware aspect of said integrated circuit, software aspect of said integrated circuit and maintainability aspect of said integrated circuit;
 - within said integrated circuit, analyzing results and providing analysis-results; and
 - within said integrated circuit, modifying or generating an architecture of said electronic entity with accordance to said analysis-results; wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said electronic entity being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity between said integrated circuit and said electronic entity, operation of said electronic entity, functionality of said electronic entity, external environment of said electronic entity, internal environment of said electronic entity, internal environment of said building blocks ,status of

said electronic entity, status of said building blocks, parameters of said building blocks, dynamic function and parameters of said electronic entity.

4. The method of claim 1 further comprising the steps of
within said integrated circuit, analyzing connectivity between said dynamic function and an electronic entity ;

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within said integrated circuit, providing analysis-results; and

within said integrated circuit, modifying said connectivity, in accordance with said analysis-results.

5. The method of claim 1, further comprising :

within said integrated circuit analyzing said specification or said integrated circuit and providing a second specification;

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within said integrated circuit, activating said first dynamic function in accordance with said second specification; and

within said integrated circuit, generating or modifying said dynamic function upon said activating said first dynamic function.

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6. The method of claim 1, further comprising :

deactivating said first dynamic function as a result of said generating or said modifying said dynamic function.

7. An integrated circuit, comprises plurality of building blocks, a first dynamic function, and a specification defining a second dynamic function; wherein said integrated circuit being operable for activating said first dynamic function in accordance with said specification and for generating or modifying said second dynamic function upon said activating said first dynamic function.

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8. A method for modifying or generating an architecture of an integrated circuit; the method comprises the steps of :

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within said integrated circuit analyzing an aspect of said integrated circuit; wherein said aspect being one member of a group consisting of security, performance, usability, reliability, environment, functionality, hardware, software and maintainability aspect,

within said integrated circuit determining results of said analysis; and

within said integrated circuit modifying or generating architecture of said integrated circuit in accordance with said results, wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said integrated circuit being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity between said integrated circuit and another electronic entity, operation of said integrated circuit, functionality of said integrated circuit, external environment of said integrated circuit, internal environment of integrated

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circuit, internal environment of said building blocks ,status of said integrated circuit, status of said building blocks, parameters of said building blocks, dynamic function, and parameters of said integrated circuit; and wherein said modifying or generating comprises one member of a group consisting of amending parameters, generating, adding, removing, connecting, disconnecting, activating, deactivating, removing a generator dynamic function as a result of generating a second dynamic function by said generator, and injecting signals.

9. The method of claim 1, wherein said building block being a dynamic building block.

10. The method of claim 8, wherein said analyzing, said determining and said modifying or generating being performed by a dynamic function within said integrated circuit.

11. An integrated circuit operable for modifying or generating an architecture of an electronic entity, said integrated circuit comprises one or more dynamic functions wherein said one or more dynamic functions being operable for analyzing an aspect of said electronic entity; wherein said aspect being one member of a group consisting of security, performance, usability, reliability, environment, functionality, hardware, software and maintainability aspect; wherein said electronic entity having connectivity with said integrated circuit; wherein said dynamic function further operable for providing analysis-results of said analyzing and for modifying or generating an architecture of said electronic entity with accordance to said analysis-results; wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said electronic entity being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity between said integrated circuit and said electronic entity, operation of said electronic entity, functionality of said electronic entity, external environment of said electronic entity , internal environment of said electronic entity, internal environment of said building blocks ,status of said , electronic entity status of said building blocks, parameters of said building blocks, dynamic function and parameters of said electronic entity.

12. A integrated circuit; said integrated circuit comprises one or more dynamic functions; said one or more dynamic functions being operable for analyzing an aspect of said integrated circuit, determining results of said analysis and modifying or generating an architecture of said integrated circuit in accordance with said results; wherein said aspect being one member of a group consisting of security, performance, usability, reliability, environment, functionality, hardware, software and maintainability aspect; wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said integrated circuit being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity

between said integrated circuit and another electronic entity, operation of said integrated circuit, functionality of said integrated circuit, external environment of said integrated circuit, internal environment of integrated circuit, internal environment of said building blocks, status of said integrated circuit, status of said building blocks, dynamic function, parameters of said building blocks and parameters of said integrated circuit.

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13. A design structure tangibly embodied in a machine readable medium for designing, manufacturing of an integrated circuit said design structure comprising structure of said integrated circuit; said integrated circuit structure comprising one or more dynamic functions; said one or more dynamic functions being operable for analyzing an aspect of said integrated circuit, for determining results of said analysis and for modifying or generating architecture of said integrated circuit in accordance with said results; wherein said aspect being one member of a group consisting of security, performance, usability, reliability, environment, functionality, hardware, software and maintainability aspect; wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said integrated circuit being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity between said integrated circuit and another electronic entity, operation of said integrated circuit, functionality of said integrated circuit, external environment of said integrated circuit, internal environment of integrated circuit, internal environment of said building blocks, status of said integrated circuit, status of said building blocks, dynamic function, parameters of said building blocks and parameters of said integrated circuit.

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14. A design structure tangibly embodied in a machine readable medium for designing, manufacturing of an integrated circuit said design structure comprising structure of said integrated circuit; said structure comprising plurality of building blocks, a first dynamic function, and a specification defining a second dynamic function; wherein said integrated circuit being adapted for activating said first dynamic function in accordance with said specification and for generating or modifying said second dynamic function upon said activating said first dynamic function.

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15. A design structure tangibly embodied in a machine readable medium for designing, manufacturing of an integrated circuit said integrated circuit being operable for modifying or generating an architecture of an electronic entity, said integrated circuit comprises one or more dynamic functions wherein said one or more dynamic functions being operable for analyzing an aspect of said electronic entity; wherein said aspect being one member of a group consisting of security, performance, usability, reliability, environment, functionality, hardware, software and maintainability aspect; wherein said electronic entity having

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connectivity with said integrated circuit; wherein said dynamic function further operable for providing analysis-results of said analyzing and for modifying or generating an architecture of said electronic entity with accordance to said analysis-results; wherein said architecture comprises one member of a group consisting of: one or more building blocks from which said electronic entity being built, output-structure or input-structure or behavior or stimuli of said building blocks, connectivity between said building blocks, connectivity between said integrated circuit and said electronic entity, operation of said electronic entity, functionality of said electronic entity, external environment of said electronic entity , internal environment of said electronic entity, internal environment of said building blocks ,status of said , electronic entity status of said building blocks, parameters of said building blocks, dynamic function and parameters of said electronic entity.