CLAIMS

1. A computer-implemented method for accelerating a start procedure of a computer system, the method comprising:

initializing, by the computer system, onetwo or more workloads, wherein the computer system operates in a boost mode andor a regular mode, wherein the boost mode includes an adjustment of a pacing setting and an adjustment of group availability targets for executing the onetwo or more workloads;

identifying that the boost mode is enabled during a system start procedure of the computer system, wherein the system start procedure is executed after a received fail-over signal, and wherein the system start procedure is hardware triggered;

identifying that the pacing setting is operating in the regular mode;

auto-optimizing a time requirement for the system start procedure by applying a gradient descent algorithm, wherein the gradient descent algorithm is derived by changing the pacing setting and a grouping setting for individual system start procedures;

selecting, as a setting for the pacing setting and as a setting for the grouping setting, values for which a function T that is a function of the pacing setting and the grouping setting, has an extremum and its first derivative is zero;

increasing, dynamically, the pacing setting, wherein increasing the pacing setting enables an increased processor utilization of the computer system by the onetwo or more workloads, and wherein the increased processor utilization generates a concurrent processing of the onetwo or more workloads; and

determining an end of the boost mode, wherein determining the end of the boost mode includes re-setting the pacing setting to the pacing setting in the regular mode.

2. The method of claim 1, further comprising:

identifying that a core system of the computer system has been initialized; and

increasing, dynamically, a number of active members of a group of software components, wherein the number of active members of the group are executed in parallel and enable the increased processor utilization by the onetwo or more workloads.

3. The method of claim 1 or 2, wherein a trigger signal for the end of the boost mode is set to a rule-based point in time after the core system has been initialized, and wherein the

number of active members of the group is reset to a related regular grouping mode.

4. The method of ~~one of claims~~claim 1 ~~to 3~~, wherein the increased processor utilization of the computer system includes the use of one or more processors, and wherein each of the one or more processors includes a plurality of ~~partial~~core processors.

5. The method of ~~one of claims 1 to~~claim 4, wherein the increasing of the pacing setting includes increasing a number of parallel executing ~~processor resources.~~ processors.

~~6. The method of one of claims 1 to 5, wherein the start procedure is executed after a received fail-over signal.~~

~~7. The method of one of claims 1 to 6, wherein the start procedure is hardware triggered.~~

~~8. The method of one of claims 1 to 7, further comprising:~~

~~auto-optimizing a time requirement for the start procedure by applying a gradient descent algorithm, wherein the gradient descent algorithm is derived by changing the pacing setting and a grouping setting for individual start procedures; and~~

~~selecting, as a setting for the pacing setting and as a setting for the grouping setting, values for which a function T that is a function of the pacing setting and the grouping setting, has an extremum and its first derivative is zero.~~

~~9.~~ A control system for ~~accelerating a start procedure of~~ a computer system, the control system comprising:

~~a~~a memory; and

~~a~~a processor in communication with the memory, the processor executing instructions contained within the memory in order to perform operations comprising:

initializing ~~one~~two or more workloads, wherein the computer system operates in a boost mode ~~and~~or a regular mode, wherein the boost mode includes an adjustment of a pacing setting and an adjustment of group availability targets for executing the ~~one~~two or more workloads;

identifying that the boost mode is enabled during a system start procedure of the computer system, wherein the system start procedure is executed after a received fail-over signal, and wherein the system start procedure is hardware triggered;

identifying that the pacing setting is operating in the regular mode;

auto-optimizing a time requirement for the system start procedure by applying a gradient descent algorithm, wherein the gradient descent algorithm is derived by changing the pacing setting and a grouping setting for individual system start procedures;

selecting, as a setting for the pacing setting and as a setting for the grouping setting, values for which a function T that is a function of the pacing setting and the grouping setting, has an extremum and its first derivative is zero;

increasing, dynamically, the pacing setting, wherein increasing the pacing setting enables an increased processor utilization of the computer system by the ~~one~~two or more workloads, and wherein the increased processor utilization generates a concurrent processing of the ~~one~~two or more workloads; and

determining an end of the boost mode, wherein determining the end of the boost mode includes re-setting the pacing setting to the pacing setting in the regular mode.

~~determining an end of the boost mode, wherein determining the end of the boost mode includes re-setting the pacing setting to the pacing setting in the regular mode.~~

~~10.~~ 7. The control system of claim ~~9~~6, wherein the operations further comprise:

identifying that a core system of the computer system has been initialized; and

increasing, dynamically, a number of active members of a group of software components, wherein the number of active members of the group are executed in parallel and enable the increased processor utilization by the ~~one~~two or more workloads.

~~11.~~

8. The control system of claim ~~9 or 10~~7, wherein a trigger signal for the end of the boost mode is set to a rule-based point in time after the core system has been initialized, and wherein the number of active members of the group is reset to a related regular grouping mode.

~~12.~~

9. The control system of ~~one of claims 9 to 11~~claim 6, wherein the increased processor utilization of the computer system includes the use of one or more processors, and wherein each of the one or more processors includes a plurality of ~~partial~~core processors.

~~13.~~

10. The control system of ~~one of claims~~claim 9~~ to 12~~, wherein the increasing of the pacing setting includes increasing a number of parallel executing ~~processor resources.~~ processors.

~~14. The control system of one of claims 9 to 13, wherein the start procedure is executed after a received fail-over signal.~~

~~15.~~

11. A computer program product~~ for accelerating a start procedure of a computer system~~, the computer program product comprising a computer readable storage medium having program instructions embodied therewith, the program instructions executable by a processor to cause the processor to perform a function, the function comprising:

initializing ~~one~~two or more workloads, wherein the computer system operates in a boost mode ~~and~~or a regular mode, wherein the boost mode includes an adjustment of a pacing setting and an adjustment of group availability targets for executing the ~~one~~two or more workloads;

identifying that the boost mode is enabled during a system start procedure of the computer system, wherein the system start procedure is executed after a received fail-over signal, and wherein the system start procedure is hardware triggered;

identifying that the pacing setting is operating in the regular mode;

~~identifying that the pacing setting is operating in the regular mode;~~

auto-optimizing a time requirement for the system start procedure by applying a gradient descent algorithm, wherein the gradient descent algorithm is derived by changing the pacing setting and a grouping setting for individual system start procedures;

selecting, as a setting for the pacing setting and as a setting for the grouping setting, values for which a function T that is a function of the pacing setting and the grouping setting, has an extremum and its first derivative is zero;

increasing, dynamically, the pacing setting, wherein increasing the pacing setting enables an increased processor utilization of the computer system by the ~~one~~two or more

workloads, and wherein the increased processor utilization generates a concurrent processing of the ~~one~~two or more workloads; and

determining an end of the boost mode, wherein determining the end of the boost mode includes re-setting the pacing setting to the pacing setting in the regular mode.

~~determining an end of the boost mode, wherein determining the end of the boost mode includes re-setting the pacing setting to the pacing setting in the regular mode.~~

~~16.~~ 12. The computer program product of claim ~~15~~11, wherein the function further comprises:

identifying that a core system of the computer system has been initialized; and

increasing, dynamically, a number of active members of a group of software components, wherein the number of active members of the group are executed in parallel and enable the increased processor utilization by the ~~one~~two or more workloads.

~~17.~~

13. The computer program product of claim ~~15 or 16~~12, wherein a trigger signal for the end of the boost mode is set to a rule-based point in time after the core system has been initialized, and wherein the number of active members of the group is reset to a related regular grouping mode.

~~18.~~

14. The computer program product of ~~one of claims 15 to 17~~claim 11, wherein the increased processor utilization of the computer system includes the use of one or more processors, and wherein each of the one or more processors includes a plurality of ~~partial~~core processors.

~~19.~~

15. The computer program product of ~~one of claims 15 to 18~~claim 14, wherein the increasing of the pacing setting includes increasing a number of parallel executing ~~processor resources.~~

~~20. The computer program product of one of claims 15 to 19, wherein the start procedure is executed after a received fail-over signal.~~

processors.