WHAT IS CLAIMED IS:

1. A substrate processing apparatus comprising:

a substrate holder configured to hold a plurality of substrates including a product substrate and a dummy substrate;

a storage part configured to store:

a device parameter that includes at least the number of substrates that can be loaded on the substrate holder and the number of product substrates to be loaded on the substrate holder; and

a device parameter that is defined for a carrier in which substrates are stored according to respective types of films; and

a controller configured to:

according to the device parameters, create substrate transfer data, which includes transfer order information indicating an order for transferring the substrates, transfer source information of the substrates mounted on the substrate holder, and transfer destination information indicating a process chamber for processing the substrates; and

based on the substrate transfer data, transfer the dummy substrate to a substrate holding region except for a heat equalization region in an entire substrate holding region on the substrate holder, and transfer the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder,

wherein the controller is configured to acquire the device parameter defined for the carrier when creating the substrate transfer data, and determine the process chamber in which the substrates stored in the carrier are processed according to an injection operation.

2. The substrate processing apparatus of Claim 1, wherein the substrate transfer data includes information indicating a carrier in which the product substrate or the dummy

substrate mounted on the substrate holder is stored, as the transfer source information, and information indicating a slot number in the carrier on which the product substrate or the dummy substrate is mounted.

3. The substrate processing apparatus of Claim 1, further comprising a monitor substrate,

wherein the transfer order information is set in the substrate transfer data such that the monitor substrate is transferred after transferring the product substrate.

4. The substrate processing apparatus of Claim 1, wherein, when the number of product substrates loaded on the substrate holder is set to be equal to or smaller than the number of substrates that can be mounted on the substrate holder, the controller creates the substrate transfer data so as to transfer the substrate transfer data to one process chamber selected from a plurality of process chambers.

5. The substrate processing apparatus of Claim 1, wherein, when the number of product substrates loaded on the substrate holder is set to be larger than the number of substrates that can be loaded on the substrate holder, the controller creates the substrate transfer data so as to distribute and transfer the substrate transfer data.

6. The substrate processing apparatus of Claim 1, wherein, when the number of product substrates loaded on the substrate holder is set to be larger than the number of substrates that can be loaded on the carrier, the controller creates the substrate transfer data so as to distribute and transfer the substrate transfer data.

7. The substrate processing apparatus of Claim 1, wherein, when the number of product substrates loaded on the substrate holder is set to be equal to or smaller than the number of

substrates that can be loaded on the carrier, the controller creates the substrate transfer data so as to transfer the substrate transfer data to one process chamber selected from a plurality of process chambers.

8. A substrate processing apparatus comprising:

a substrate holder configured to hold a plurality of substrates including a product substrate and a dummy substrate;

a storage part configured to store:

a device parameter that includes at least the number of substrates that can be loaded on the substrate holder and the number of product substrates to be loaded on the substrate holder; and

a device parameter that defines maintenance items and maintenance numbers, respectively; and

a controller configured to:

according to the device parameters, create substrate transfer data, which includes transfer order information indicating an order for transferring the substrates, transfer source information of the substrates mounted on the substrate holder, and transfer destination information indicating a process chamber for processing the substrates; and

based on the substrate transfer data, transfer the dummy substrate to a substrate holding region except for a heat equalization region in an entire substrate holding region on the substrate holder and transfer the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder,

wherein the controller is configured to compare current values of items, which are defined in the maintenance items corresponding to the maintenance numbers, for respective process chambers, and determine the process chamber for transferring the substrates.

9. A substrate processing apparatus comprising:

a substrate holder configured to hold a plurality of substrates including a product substrate and a dummy substrate;

a storage part configured to store:

a device parameter that includes at least the number of substrates that can be loaded on the substrate holder and the number of product substrates to be loaded on the substrate holder; and

a login parameter for setting a usable process chamber for each login user or a carrier parameter for setting a usable process chamber for each carrier type; and

a controller configured to:

according to the device parameter, create substrate transfer data, which includes transfer order information indicating an order for transferring the substrates, transfer source information of the substrates mounted on the substrate holder, and transfer destination information indicating a process chamber for processing the substrates; and

based on the substrate transfer data, transfer the dummy substrate to a substrate holding region except for a heat equalization region in an entire substrate holding region on the substrate holder and transfer the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder,

wherein the controller is configured to determine the process chamber for transferring the substrates according to contents of the login parameter when types of films to be processed on the product substrate are different for respective process chambers, and determine the process chamber for transferring the substrates according to contents of the carrier parameter when the types of films to be processed on the product substrate are the same.

10. The substrate processing apparatus of Claim 9, further comprising:

an operation part having a setting screen for setting the login parameter,

wherein the operation part further has a setting screen configured to set the types and the number of carriers to be used, and

wherein the controller is configured to display the set carrier on the setting screen at the time of an injection operation at the operation part.

11. The substrate processing apparatus of Claim 1, wherein the number of product substrates is 25 or more and 100 or less.

12. A method of manufacturing a semiconductor device, comprising:

according to a device parameter that includes at least the number of substrates that can be mounted on a substrate holder that holds substrates including a product substrate and a dummy substrate, and the number of product substrates to be mounted on the substrate holder, and a device parameter that is defined for a carrier in which the substrates are stored according to respective types of films, creating substrate transfer data including:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates;

based on the substrate transfer data, transferring the substrates includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder; and

loading the substrate holder into a furnace to process the product substrate ,

wherein the act of creating the substrate transfer data includes acquiring the device

parameter defined for the carrier and determining the process chamber in which the substrates stored in the carrier are processed according to an injection operation.

13. A program that is executed in a substrate processing apparatus, which includes:

a substrate holder that holds a plurality of substrates including a product substrate and a dummy substrate;

a transfer mechanism that loads the substrates into the substrate holder; and

a controller configured to cause the transfer mechanism to transfer the substrates to the substrate holder,

wherein the program causes the controller to perform:

according to a device parameter that includes at least the number of substrates that can be mounted on a substrate holder, which holds substrates including a product substrate and a dummy substrate, and the number of product substrates to be mounted on the substrate holder, and a device parameter that is defined for a carrier in which the substrates are stored according to respective types of films, a process of creating substrate transfer data, which includes:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates; and

based on the created substrate transfer data, a process of transferring the substrates to the transfer mechanism,

wherein the process of transferring includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and

transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder, and

wherein the program causes the controller to perform, in the process of creating the substrate transfer data, a process of acquiring the device parameter defined for the carrier and determining the process chamber in which the substrates stored in the carrier are processed according to an injection operation.

14. A method of manufacturing a semiconductor device, comprising:

according to a device parameter that includes at least the number of substrates that can be mounted on a substrate holder, which holds substrates including a product substrate and a dummy substrate, and the number of product substrates to be mounted on the substrate holder, and a device parameter that defines maintenance items and maintenance numbers, respectively, creating substrate transfer data including:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates; and

based on the substrate transfer data, transferring the substrates includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder,

wherein the act of creating the substrate transfer data includes comparing current values of items, which are defined in the maintenance items corresponding to the maintenance numbers, for respective process chambers and determining the process chamber for transferring the substrates.

15. A program that is executed in a substrate processing apparatus, which includes:

a substrate holder that holds a plurality of substrates including a product substrate and a dummy substrate;

a transfer mechanism that loads the substrates into the substrate holder; and

a controller configured to cause the transfer mechanism to transfer the substrates to the substrate holder,

wherein the program causes the controller to perform:

according to a device parameter that includes at least the number of substrates that can be loaded on a substrate holder and the number of product substrates to be loaded on the substrate holder, and a device parameter that defines maintenance items and maintenance numbers, respectively, a process of creating substrate transfer data, which includes:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates; and

based on the created substrate transfer data, a process of transferring the substrates to the transfer mechanism,

wherein the process of transferring includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder, and

wherein the program causes the controller to perform, in the process of creating the substrate transfer data, a process of comparing current values of items, which are defined in

the maintenance items corresponding to the maintenance numbers, for respective process chambers, and determining the process chamber for transferring the substrates.

16. A method of manufacturing a semiconductor device, comprising:

according to a device parameter that includes at least the number of substrates that can be mounted on a substrate holder, which holds substrates including a product substrate and a dummy substrate, and the number of product substrates to be mounted on the substrate holder, and a login parameter for setting a usable process chamber for each login user or a carrier parameter for setting a usable process chamber for each carrier type, creating substrate transfer data including:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates; and

based on the substrate transfer data, transferring the substrates includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder,

wherein the act of creating the substrate transfer data includes determining the process chamber for transferring the substrates according to contents of the login parameter when types of films to be processed on the product substrate are different for respective process chambers, and determining the process chamber for transferring the substrates according to contents of the carrier parameter when the types of films to be processed on the product substrate are the same.

17. A program that is executed in a substrate processing apparatus, which includes:

a substrate holder that holds a plurality of substrates including a product substrate and a dummy substrate;

a transfer mechanism that loads the substrates into the substrate holder; and

a controller configured to cause the transfer mechanism to transfer the substrates to the substrate holder,

wherein the program causes the controller to perform:

according to a device parameter that includes at least the number of substrates that can be loaded on a substrate holder and the number of product substrates to be loaded on the substrate holder, and a login parameter for setting a usable process chamber for each login user or a carrier parameter for setting a usable process chamber for each carrier type, a process of creating substrate transfer data, which includes:

transfer order information indicating an order of transferring the substrates,

transfer source information of the substrates mounted on the substrate holder, and

transfer destination information indicating a process chamber for processing the substrates; and

based on the created substrate transfer data, a process of transferring the substrates to the transfer mechanism,

wherein the process of transferring includes transferring the dummy substrate to a substrate holding region on the substrate holder except for a heat equalization region in an entire substrate holding region on the substrate holder, and transferring the product substrate to the heat equalization region in a remaining substrate holding region on the substrate holder, and

wherein the program causes the controller to perform, in the process of creating the

substrate transfer data, a process of transferring the substrates according to contents of the login parameter when types of films to be processed on the product substrate are different for respective process chambers and determining the process chamber for transferring the substrates according to contents of the carrier parameter when the types of films to be processed on the product substrate are the same.