CLAIMS

[Claim 1] A maintenance management system which manages maintenance of an air conditioning machine, comprising:

a maintenance assist apparatus which assists with the maintenance of the air conditioning machine; and

control equipment utilized by a user to control the air conditioning machine and, wherein

the maintenance assist apparatus comprises:

a timing determination unit to determine whether or not it is a timing to acquire a dirtfilter image which is an image indicating dirt severenessobtained by photographing a filter of the air conditioning machine, and transmit to the control equipment, an image acquisition request which requests for acquisition of the dirtfilter image, when it is determined that it is the timing to acquire the dirtfilter image; and,

an image registration unit to, when the dirt image is acquired from the control equipment, accumulate the dirt image in a storage unit, set as incidental service information, information used for offering an incidental service to the control equipment, and output to the control equipment, an incidental service notification which notifies that the incidental service has been offeredthe control equipment comprises

a photographing assist unit to display the image acquisition request on display equipment and assist the user in photographing the filter, when the image acquisition request is received, and

the maintenance assist apparatus comprises

an image registration unit to acquire the filter image photographed by the user and accumulate the filter image in a storage unit.

[Claim 2] The maintenance management system according to claim 1, wherein the dirt image is a filter image obtained by photographing a filter of the air conditioning machine.

[Claim 3] The maintenance management system according to claim 2 comprising:

display equipment to display the image acquisition request when the image acquisition request is received from the maintenance assist apparatus; and

a photographing assist unit to photograph the filter image and transmit the filter image to the maintenance assist apparatus according to the image acquisition request.

[Claim 4~~2~~] The maintenance management system according to claim 3~~1~~, wherein the maintenance management system comprises lifestyle information including cleaning service information and a lifestyle of the user, wherein usage status of a cleaning service on the air conditioning machine is set to the cleaning service information, and

the timing determination unit determines whether or not it is the timing to acquire the filter image, based on the cleaning service information and the lifestyle of the user.

~~[Claim 3] The maintenance management system according to claim 1 or 2, wherein~~

~~when the filter image is acquired from the user, the image registration unit accumulates the filer image in the storage unit, sets as incidental service information, information used for offering an incidental service to the user, and transmits to the user, an incidental service notification which notifies that the incidental service has been offered.~~

[Claim 5~~4~~] The maintenance management system according to ~~any one of~~ claim~~s~~

~~1 to 3~~4, wherein

the photographing assist unit facilitates photographing the filter by enabling a filter frame included in the filter to be positioned at a specific mark.

[Claim 6~~5~~] The maintenance management system according to claim 5~~4~~, wherein

the photographing assist unit facilitates photographing the filter by enabling a corner part of the filter frame included in the filter to be positioned at the specific mark.

[Claim 7~~6~~] The maintenance management system according to any one of claims 2~~1~~ to 6~~5~~ comprising

a dirt evaluation unit to determine dirt severeness of the filter based on the filter images accumulated in the storage unit and register the dirt severeness in the storage unit.

[Claim 8~~7~~] The maintenance management system according to claim 7~~6~~, wherein

the image registration unit registers the filter image obtained by photographing the filter provided with a character or a symbol, and

the dirt evaluation unit determines the dirt severeness based on an outcome of reading the character or the symbol included in the filter image.

[Claim 9~~8~~] The maintenance management system according to claim 7~~6~~ or 8~~7~~, wherein

the dirt evaluation unit determines the dirt severeness based on a change of color of the dirt on the filter included in the filter image.

[Claim 10~~9~~] The maintenance management system according to any one of claims 7~~6~~ to 9~~8~~, wherein

the dirt evaluation unit calculates correlation data between the lifestyle of the user and the dirt severeness.

[Claim 11~~10~~] A maintenance management method used ~~by~~ for a maintenance

management system which manages maintenance of an air conditioning machine and comprises:

a maintenance assist apparatus which assists with the maintenance of the air conditioning machine; and

control equipment utilized by a user to control the air conditioning machine, the maintenance management method comprising:

determining~~, by a timing determination unit of the maintenance assist apparatus,~~ whether or not it is a timing to acquire a dirt~~filter~~ image which is an image indicating dirt severeness ~~obtained by photographing a filter~~ of the air conditioning machine, and transmitting to the control equipment, an image acquisition request which requests for acquisition of the dirt~~filter~~ image, when it is determined that it is the timing to acquire the dirt~~filter~~ image; and

when the dirt image is acquired from the control equipment, accumulating the dirt image in a storage unit, setting as incidental service information, information used for offering an incidental service to the control equipment, and outputting to the control equipment, an incidental service notification which notifies that the incidental service has been offered~~displaying, by a photographing assist unit of the control equipment, the image acquisition request on display equipment and assisting the user in photographing the filter, when the image acquisition request is received; and~~

~~acquiring, by an image registration unit of the maintenance assist apparatus, the filter image photographed by the user and accumulating the filter image in a storage unit~~.

[Claim 12~~11~~] A maintenance management program for a maintenance management system which manages maintenance of an air conditioning machine and comprises:

a maintenance assist apparatus which assists with the maintenance of the air

conditioning machine; and

control equipment utilized by a user to control the air conditioning machine, the maintenance management program causing a computer to execute:

a timing determination process of determining whether or not it is a timing to acquire a dirt~~filter~~ image which is an image indicating dirt severeness ~~obtained by photographing a filter~~ of the air conditioning machine, and transmitting to the control equipment, an image acquisition request which requests for acquisition of the dirt~~filter~~ image, when it is determined that it is the timing to acquire the dirt~~filter~~ image; and

an image registration process of, when the dirt image is acquired from the control equipment, accumulating the dirt image in a storage unit, setting as incidental service information, information used for offering an incidental service to the control equipment, and outputting to the control equipment, an incidental service notification which notifies that the incidental service has been offered~~a photographing assist process of displaying the image acquisition request on display equipment and assisting the user in photographing the filter, when the image acquisition request is received; and~~

~~an image registration process of acquiring the filter image photographed by the user and accumulating the filter image in a storage unit~~.