PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7256095

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MASAYUKI SAKATA	02/24/2022
YOSHINARI HORI	03/02/2022
DAISUKE ITO	03/02/2022
TOSHIHIKO KASHIYAMA	02/24/2022
TAISUKE UETA	02/23/2022
MASAAKI IWASAKI	03/02/2022

RECEIVING PARTY DATA

Name:	HITACHI, LTD.
Street Address:	6-6, MARUNOUCHI 1-CHOME
City: CHIYODA-KU, TOKYO	
State/Country:	JAPAN
Postal Code: 100-8280	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17709611

CORRESPONDENCE DATA

Fax Number: (202)624-8844

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2026242800

ehorne@crowell.com, edocket@crowell.com Email:

CROWELL & MORING LLP Correspondent Name:

P.O. BOX 14300 Address Line 1:

Address Line 4: WASHINGTON, D.C. 20011-4300

ATTORNEY DOCKET NUMBER:	109896.PF455US
NAME OF SUBMITTER:	MICHAEL H. JACOBS
SIGNATURE:	/Michael H. Jacobs/
DATE SIGNED:	03/31/2022

Total Attachments: 6

PATENT REEL: 059458 FRAME: 0886

507209245



(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)

(発明者フルネームサイン)			(署名日)
1) _	/Masayuki Sakata/	Masayuki SAKATA	February 24, 2022
2) _		Yoshinari HORI	
3) _		Daisuke ITO	
4) _		Toshihiko KASHIYAMA	
5)		Taisuke UETA	
		Maranaki IVA/A QAIZI	
8) _			

PATENT REEL: 059458 FRAME: 0888

Date Signed

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

11.11 (ELITOR (O)

INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)	
1)		Masayuki SAKATA	
2)	/Yoshinari Hori/	Yoshinari HORI	March 2, 2022
3)		Daisuke ITO	
4)		Toshihiko KASHIYAMA	
5)		Taisuke UETA	
6)		Masaaki IWASAKI	
7)			
8)			

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)	
1) .	Masayuki SAKAT	<u> </u>	
2) .	Yoshinari HOF	<u> </u>	
3) .	/Daisuke Ito/ Daisuke IT	Mar 2, 2022	
4) .	Toshihiko KASHIYAM	<u> </u>	
5) .	Taisuke UET	<u> </u>	
6) .	Masaaki IWASAk	<u> </u>	
7) .			
8) .		_	

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)	
1) _	Masayuki SAKATA		
2) _	Yoshinari HORI		
3) _	Daisuke ITO		
4) _	/Toshihiko Kashiyama/ Toshihiko KASHIYAMA	February 24, 2022	
5) _	Taisuke UETA		
6) _	Masaaki IWASAKI		
7) _			
8) _			

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)			Date Signed (署名日)	
1)		Masayuki SAKATA		
2)		Yoshinari HORI		
3)		Daisuke ITO		
4)		Toshihiko KASHIYAMA		
5)	/Taisuke Ueta/	Taisuke UETA	February 23, 2022	
6)		Masaaki IWASAKI		
7)				
8)				

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi, Ltd.,

a corporation organized under the laws of Japan,

located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8280 Japan

receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd.,

its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIGITAL TWIN MANAGEMENT SYSTEM AND METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi, Ltd.

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)	
1) _	Masayuki SAKATA		
2) _	Yoshinari HORI		
3) _	Daisuke ITO		
4) _	Toshihiko KASHIYAMA		
5) _	Taisuke UETA		
6) _	/Masaaki lwasaki/ Masaaki lWASAKI	March 2, 2022	
7) _			
8) _			

PATENT REEL: 059458 FRAME: 0893

RECORDED: 03/31/2022