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fusionar

realwear

Fusion Augmented Reality User Guide

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ABOUT THIS DOCUMENT

This User Guide explains the installation and operation of Fusion AR V. 1.0 with RealWear HMT-1 and HMT-1Z1. Both devices will be referred herein as HMT.

This icon represents a voice command.

Available voice commands are active only on the screens that display them.

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System Requirements

Operating System	Android 8.0 or 6.0 Oreo & Marshmallow
Skype for Business online	Microsoft Skype for Business Online 2015 Server
Connectivity	WIFI (2.4GHz/5GHz) or cellular hotspot connectivity (3G/4G/5G)
Supported Device	HMT-1 with WearHF™ 9.04 or later hands-free interface HMT-1Z1 with WearHF™ 5.02 or later hands-free interface

Fusion Augmented Reality Operation

Fusion AR is consistent with three major parts:

1. Fusion Remote
2. WorkLogic
3. Fusion AR.

ACRONYMS

Term	Definition
FR	Fusion Remote
FWL	Fusion WorkLogic
FAR	Fusion Augmented Reality

Table **Error! No text of specified style in document.**-1: Acronyms

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DOWNLOADING THE APK

Step 1: Download the APK from the Google Drive . Download the latest APK to your system.

Step 2: Launch the RealWear Explorer 4.0 or later.

Step 3: Drag and drop the APK on the top right corner of RealWear Explorer window. (*Figure 1*)
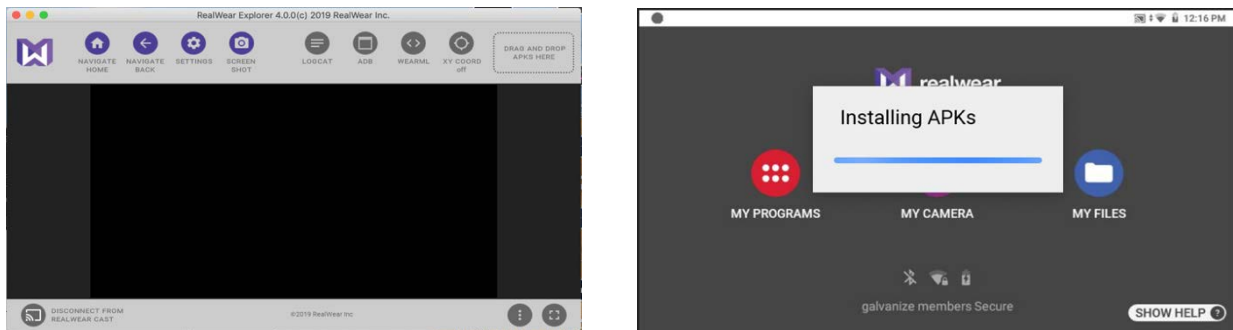
Figure 1

Step 4: Accept the Terms and Conditions. Say, "**OK**" (*Figure 2*)
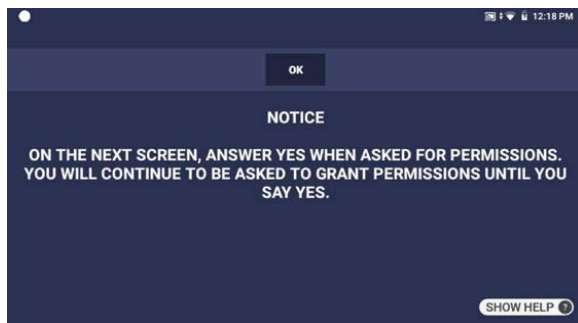
Figure 2

Step 5: Answer the 4 next questions to allow the Fusion AR to access the device for:

    1. Allow Fusion AR to take Picture and record Video? Say: "**Allow**"
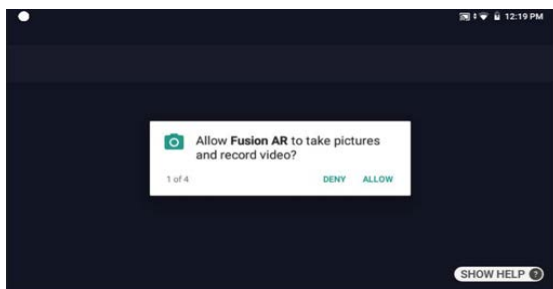
2. Allow Fusion AR to record Audio. Say: "**Allow**"
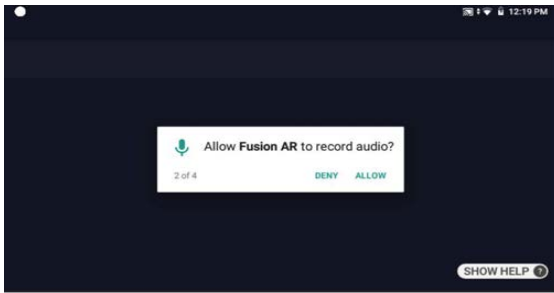
3. Allow Fusion AR to access photos, media, and files on your device? Say: "**Allow**"
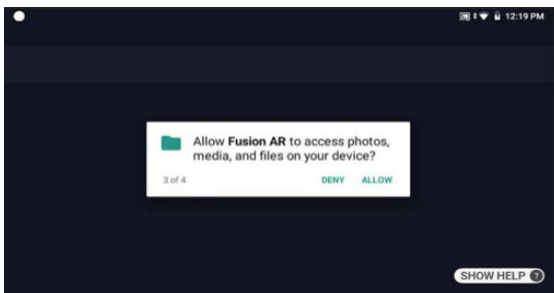
4. Allow Fusion AR to make and manage phone calls? Say: "**Allow**"
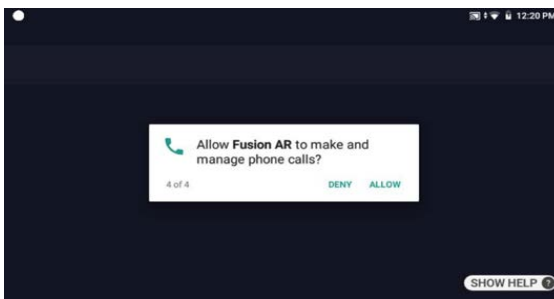
Step 6: The program is now ready to be used. Three Icons "Fusion Remote", "WorkLogic", and "Fusion AR".
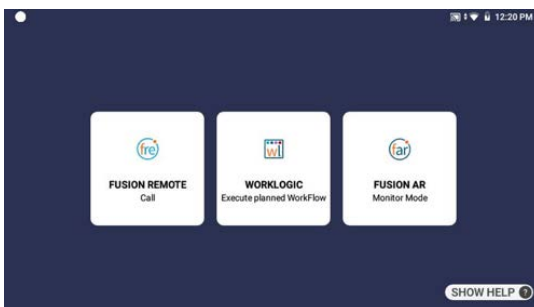
FUSION REMOTE OPERATION ON HMT

A   How to Prepare Skype for Business User's Credentials for Use with Fusion Remote

B   How to Launch Fusion Remote on the HMT

C   How to Acquire User's Skype for Business Credentials

D   How to Authenticate on Microsoft Online Skype for Business Server

E   How to Operate the Contact list

F   How to Initiate a Meeting

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H   Live Call – How to Capture and Share an Image

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HOW TO PREPARE SKYPE FOR BUSINESS USER'S CREDENTIALS FOR USE WITH FUSION REMOTE

ONLINE SKYPE FOR BUSINESS ORGANIZATION

Step 1: Generate the QR Code*[1] corresponding to your SfB username and password, using the following web service: https://fusionremote.YourDomain.com/ For POC and Trials, please access the page at https://fusionremote.jujotech.com

Step 2: On the web page, select the button "Skype for Business Credentials"

Step 3: If you have an Online Skype for Business Organization, select "Online Skype for Business" on the top dropdown-box

Step 4: Enter your Skype for Business Username and Password and hit Encrypt

Step 5: Save or Print the displayed AES encrypted QR Code

Step 6: After launching Fusion Remote, Say, "Scan QR Code" to scan the QR code you have generated and proceed with authentication

FusionRemote - Skype for Business Credentials

On line Skype for Business

example@jujo.com

••••••••

Encrypt

---

[1] *QR Code: Quick Response Code used to store textual information, which can be decoded using image recognition software

ON-PREMISES SKYPE FOR BUSINESS ORGANIZATION

Step 1: Generate the QR Code*[2] corresponding to your SfB username and password, using the following web service: https://fusionremote.YourDomain.com/. For POC and Trials, please access the page at https://fusionremote.jujotech.com

Step 2: On the web page, select the button "Skype for Business Credentials"
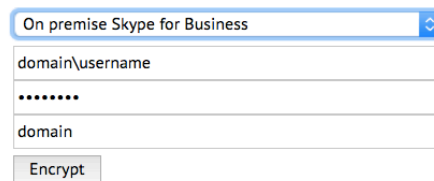
Step 3: If you have an On-premises Skype for Business Organization, select "On-Premises Skype for Business" on the top dropdown-box

Step4: Enter your Skype for Business Username, Password, and Domain (domain\username) information; hit Encrypt

Step 4: Save or Print the displayed AES encrypted QR Code

Step 5: After launching Fusion Remote, Say, "Scan QR Code" to scan the QR code you have generated and proceed with authentication

FusionRemote - Skype for Business Credentials

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[2] *QR Code: Quick Response Code used to store textual information, which can be decoded using image recognition software

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How to Launch Fusion Remote on the HMT

Step 1 "**Navigate Home**": to access the Home Screen (*Figure 1*)

Step 2 "**My Programs**": to access the Launcher Screen (*Figure 2*)

Step 3 Locate Fusion Remote icon (fre) on the HMT Application Screen (*Figure 2*)

Step 4 "**Fusion Remote**": to start the application

Figure 1
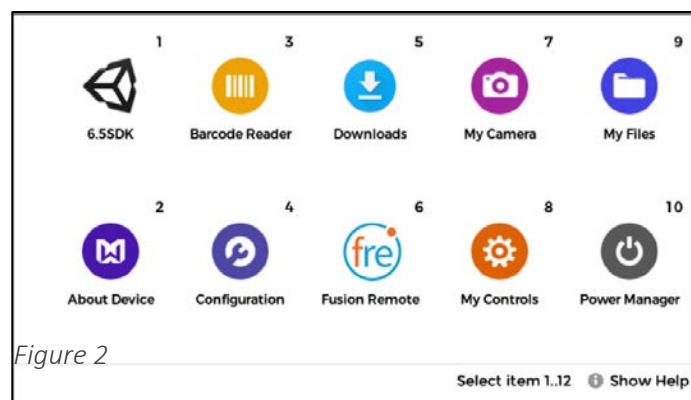
Figure 2

Voice commands highlighted in blue

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(A) (B) **(C)** (D) (E) (F) (G) (H)

HOW TO ACQUIRE USER'S SKYPE FOR BUSINESS CREDENTIALS

Once Fusion Remote has launched for the first time, the Scan QR Code Panel is displayed, as shown in *Figure 1*

Step 1: "**Scan QR Code**" to open the integrated Barcode Scanner, as shown in *Figure 2*

Step 2: Focus the target are on the QR Code and wait for the HMT feedback sound

Step 3: Once the QR Code is acquired and credentials verified, the username is displayed in Microsoft Skype for Business Login screen.

For On-Premises Skype for Business Organizations, authentication will immediately follow Step 3 and the user will be presented with the Contact List Screen on successful authentication. Please proceed with Section E "**How to operate the Contact List**" in this case.

For Online Skype for Business Organizations, authentication will follow the steps described in Section D "**How to Authenticate on Microsoft Online Skype for Business Organization**".
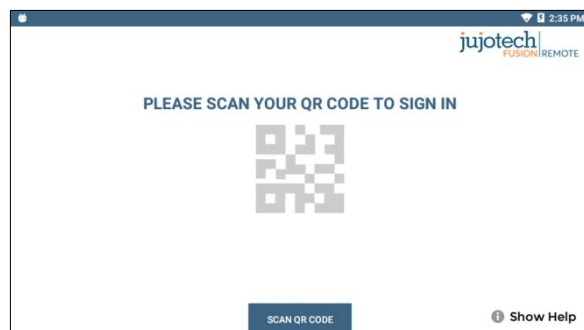
Figure 1
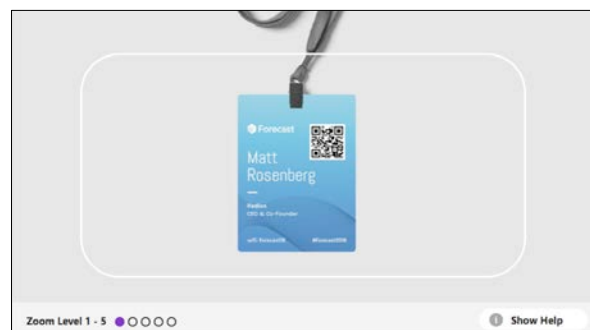
Figure 2

Voice commands highlighted in blue

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HOW TO AUTHENTICATE ON MICROSOFT ONLINE SKYPE FOR BUSINESS SERVER

Once Fusion Remote has launched for the first time, the Scan QR Code Panel is displayed, as shown in *Figure 1*

Step 1: "**Enter Username**" fills in the username field

Step 2: "**Next**" proceeds to step 3

Step 3: "**Set Password**" fills in the password field

Step 4: "**Sign In**" executes authentication. If successful, proceeds to step 5; otherwise reenter password (Step 4) or restart from Step 1, as instructed

Step 5: "**Yes**" maintains authentication after exiting Fusion Remote and proceeds to step 6
"**No**" requires authentication after exiting Fusion Remote and to proceeds to step 6

Step 6: "**Accept**" completes process and proceeds to Contact List
"**Cancel**" cancels the process and returns to Step 1
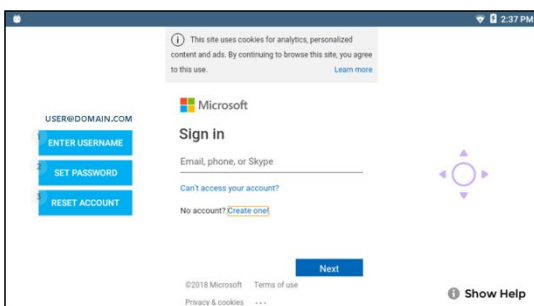
Figure 1. Initial Microsoft Login Screen
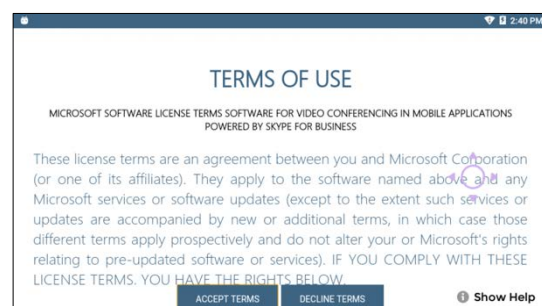
Figure 2. EULA Acceptance Screen

Note: In case a step fails, Say, "**Navigate Back**" and repeat the step

Voice commands highlighted in blue

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HOW TO OPERATE THE CONTACT LIST

Upon successful authentication, the user's list of SfB contacts will be displayed, along with user's presence and login info (upper right corner in *Figure 1*) and actions

Contact list can be filtered using the following voice commands:

"**ONLINE CONTACTS**" **online** contact ordered alphabetically

"**RECENT CONTACTS**" **recent** contact ordered alphabetically

"**CONTACT NAMES**"   **all contact** ordered alphabetically

"**CONTACTS WITH <letter>**" to scroll the list to the first name starting by <letter>

"**PAGE UP/DOWN**" to scroll up/down a long list of contacts

A contact name can be selected even if not in the visible portion of the Contact List
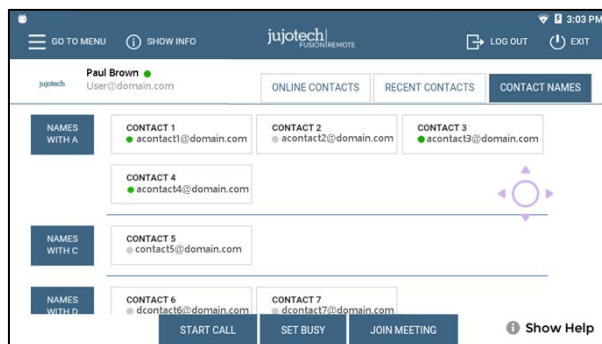
Figure 1. List of Contacts
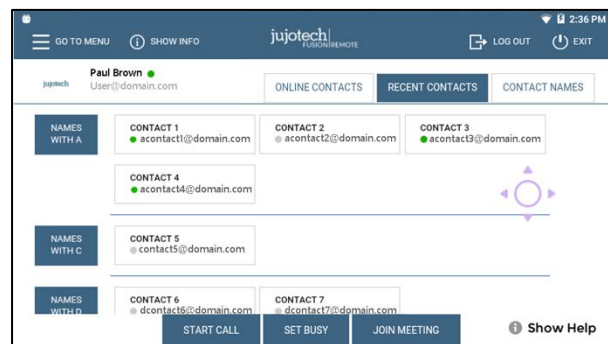
Figure 2. Ordered List of Contacts

Voice commands highlighted in blue

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(A) (B) (C) (D) (E) **(F)** (G) (H)

HOW TO INITIATE A MEETING

Step 1: "**SELECT <contact full name>**" or "**SELECT contact <number>**" starts a call (*Figure 1*).
In case of selection error, simply repeat. The selected contact will be highlighted

Step 2: "**START CALL**" initiates a call with the selected contact

The interface during a live call (*Figure 2*) offers the following commands:

"**STOP/START AUDIO**" manages the HMT microphone

"**STOP/START STREAM**" manages the PIP Stream

"**SELECT MY STREAM**" selects the HMT stream to full screen

"**SHOW INFO**" displays Information Panel

"**SHOW/HIDE CHAT**" shows/hides the Instant Messaging panel

"**STOP CALL**" stops the call

"**SHOW PARTICIPANTS**" shows Participants Panel

"**SELECT PARTICIPANT <number>**" or "**SELECT <participant name>**" selects the stream
<number> to full screen
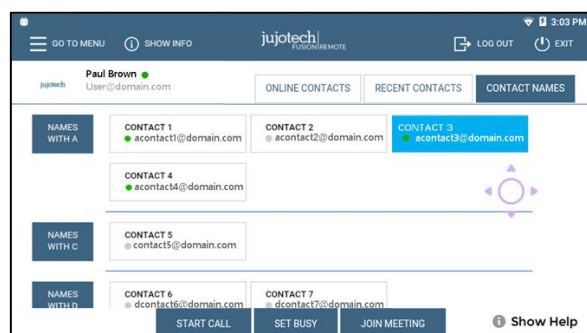
Figure 1. Call initiation
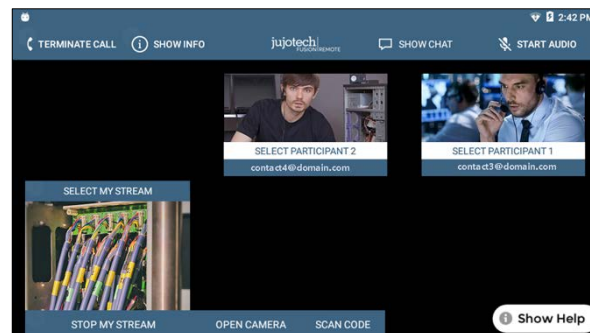
Figure 2. Participants selection during multicast

 Voice commands highlighted in blue

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(A) (B) (C) (D) (E) (F) (G) (H)

LIVE CALL – HOW TO USE THE INSTANT MESSAGING

Text messages can be exchanged between the Remote Expert and the Fusion Remote user using the following voice commands:

Step 1: "**Show Chat**" opens the Instant Messaging panel

Step 2: "**Write Message**" writes a message to the Remote Expert

Step 3: "**Dictation**" starts dictating the message

Step 4: "**Accept**" enters the text into the message

Step 5: "**Send Message**" sends the message to the meeting chat

Step 6: "**Hide Chat**" hides the Instant Messaging panel
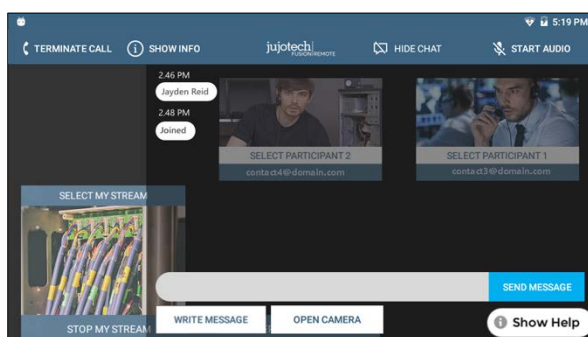
Figure 1. Instant messaging
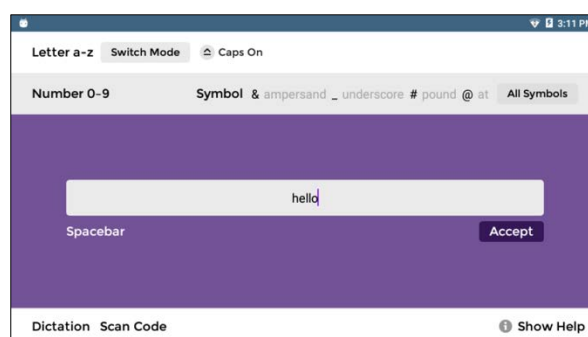
Figure 2. Message dictation

Voice commands highlighted in blue

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A B C D E F G **H**

LIVE CALL – HOW TO CAPTURE AND SHARE AN IMAGE

Images can be captured and exchanged between the Remote Expert and the Fusion Remote user using the following voice commands:

Step 1: "**Open Camera**" opens the HD camera (*Figure 1*). This command is also available in the Chat Panel

Step 3: "**Take Photo**" captures a still image (*Figure 2*). The image is immediately uploaded, and a URL is placed on the meeting chat for downloading. Multiple images may be captured and uploaded

Step 4: "**Record Video**" records a video clip. Maximum duration can be selected in the Settings Panel and the default length is set to 15 seconds. Multiple video clips can be recorded and uploaded

Step 5: "**Close Camera**" closes the Camera Panel

Additional commands:

"**Show Settings**" opens camera settings panel. This command is also available in the Main Menu panel (from Contact List/Goto Menu)

"**Zoom Level <number 1-5>**" executes the desired zoom level on the camera image
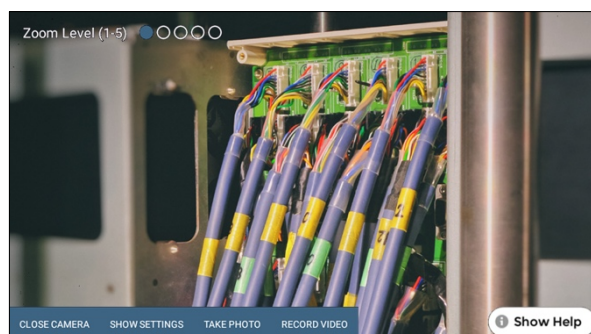
Figure 1. Camera Panel

Figure 2. Record Video Clip

Voice commands highlighted in blue

WORKLOGIC

Jujotech WorkLogic enables full enterprise integration of existing actionable workflows and actionable IoT via open API ingestion. WorkLogic provides rich media annotation at the edge with workflow accomplishment. Best in class voice control for hands free workflow:

- Step by step instructions
- Checklist & forms
- Troubleshooting decision trees
- Standard operating procedures

Tasks and troubleshooting activities are optimized, reducing human error and significantly increasing overall efficiencies.

Jujotech WorkLogic loads XML workflow files that must be compliant with the following specific rules set forth in this document under the heading of "validator".

The type of workflow is customer specific and the format is depended on the customer choice on the workflow editor. There are some editors in the market that have a capability of generating the work flow in XML format. In the cases that the customer does not have the capability of translating the workflow to XML format, Jujotech offers this service of generating XML files from any format of workflow. Additionally, Jujotech offers an XML "validator" to ensure the XML file is in the correct format for WorkLogic consumption.

All the commands are presented as the use cases in an effort to help in the training of user and helping them in understanding the system.

VALIDATOR

The Validator is located in the (https://fusionremote.jujotech.com/validator.php). Prior to uploading the Workflows, one needs to ensure the compliance of the XML file to WorkLogic system.

To implement a workflow in WorkLogic framework it needs to be written in XML format with a predefined schema.

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<keywords>
                <keyword>workflow example</keyword>
                <keyword>workflow demonstration</keyword>
</keywords>
    <step n="1" level="0">
    <text>Image</text>
                <image type="local">image.png</image>
    </step>
    <step n="2" level="0">
        <text>Video</text>
```

```
          <video type="local">wildlife.wmv</video>
      </step>
      <step n="3" level="0">
          <text>Audio</text>
          <audio type="local">audio.mp3</audio>
      </step>
  </workflow>
```

The following tags needed in the **workflow** definition.

- Id attribute, unique for all workflows, a best practice to build unique workflow is to use organization name and workflow identification inside organization: orgname_workflowid;
  - **Version** attribute;
  - **Title** attribute;

Each workflow tag could have:

- **steplist** attribute in order to:
  - show it with true value;
  - not show it with false value;
- **mentors** list attribute.
- **enable** attribute in order to:
  - enable the workflow with true value;
  - disable the workflow with false value.

Example:

```
<workflow id="JUJO_Example_001" version="1" title="Workflow title"
steplist="true" enable ="true" mentor="mentor_1@jujo.com,mentor_2@jujo.com">
```

The **workflow** children tag may be:
- enable_wf_list (optional)
- keyword (optional)
- step (at least one step)
- wf_checklist (optional)

Element order is a constraint.

Example:

```
<workflow id="demo_wor_steplist" version="1" title="Demo workflow steplist"
enable="true" steplist="true">
    <enable_wf_list>
        <wf_to_enable>demo_AWE_checklist_case</wf_to_enable>
    </enable_wf_list>
    <keywords>
        <keyword>workflow example</keyword>
        <keyword>workflow demonstration</keyword>
    </keywords>
    <step n="1" level="0">
```

```
        <text>Image</text>
        <image type="local" num="1">system_image.png</image>
    </step>
```

Workflow Connections:

To create a connection between workflows, in each workflow could be present a list of workflows to enable when the current workflow is done. The workflow tag has a child **enable_wf_list** tag with several child **wf_to_enable** tags, each for every workflow to enable.

Example:

```
<workflow id="JUJO_Example_001" version="1" title="Workflow title"
steplist="true" mentor="mentor_1@jujo.com,mentor_2@jujo.com">
<enable_wf_list>
        <wf_to_enable>id1</wf_to_enable>
        <wf_to_enable>id2</wf_to_enable>
        <wf_to_enable>id3</wf_to_enable>
        <wf_to_enable>id4</wf_to_enable>
 </enable_wf_list>
```

To search a workflow with keywords, it's possible to add **keywords** tag as a child of workflow with several child **keyword** tags.

Example:

```
<workflow id="Example_001" version="1" title="Workflow title" steplist="true"
mentor="mentor_1@jujo.com,mentor_2@jujo.com">
<keywords>
<keyword>demo</keyword>
<keyword>JUJOTECH</keyword>
<keyword>example</keyword>
<keyword>worklogic</keyword>
</keywords>
```

Each workflow is composed by several steps, it's possible to add **steps** tags as a child of workflow with:

- **n** attribute to define which is the step,
- **level** optional attribute to assign a level of criticality for the step (level=0 Normal, level=1 Critical, and so on).

You have to add at least one step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
    <text>Image</text>
                <image type="local">image.png</image>
    </step>
```

```
    <step n="2" level="0">
        <text>Video</text>
        <video type="local">wildlife.wmv</video>
    </step>
    <step n="3" level="0">
        <text>Audio</text>
        <audio type="local">audio.mp3</audio>
    </step>
</workflow>
```

Each step is composed by several optional children:

- text
- warning
- image
- video
- audio
- pdf
- schema
- choice
- step_checklist

Element order is a constraint.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
    <text>Image</text>
                <image type="local">image.png</image>
    </step>
    <step n="2" level="0">
        <text>Video</text>
        <video type="local">wildlife.wmv</video>
    </step>
    <step n="3" level="0">
        <text>Audio</text>
        <audio type="local">audio.mp3</audio>
    </step>
</workflow>
```

To display text during a step, the step tag has a child **text** tag.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
```

```
        <text>Hello world!</text>
</step>
</workflow>
```

To add alerts in each step, the step tag has a child **warning** tag with the alert message.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>Demo</text>
        <warning>Please pay attention</warning>
</workflow>
```

To display image assets during a step, the step tag has several children **image** tags with the name of the image and:

- **num** attribute with the order number;
- **type** attribute with local or remote value;
- **Title** optional attribute.

You can add more than one image in each step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
    <text>Image</text>
                <image num="1" type="local">image_1.png</image>
                <image num="2" type="local">image_2.png</image>
    </step>
<step n="2" level="0">
    <text>Image</text>
                <image num="1" type="remote">www.jujotech.com/
                                    image.png</image>
</step>
</workflow>
```

To play audio assets during a step, the step tag has a child **audio** tag with the name of the audio and:

- **attribute** type, local or remote.

You can add only one audio in each step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>Audio</text>
```

```
        <audio type="local">audio.mp3</audio>
    </step>
<step n="2" level="0">
    <text>Audio</text>
                <audio type="remote">www.jujotech.com/
audio.mp3</audio>
</step>
</workflow>
```

To play video assets during a step, the step tag has a child **video** tag with the name of the video and:

- **attribute** type, local or remote.

You can add only one video in each step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
   <text>Video</text>
        <video type="local">wildlife.wmv</video>
    </step>
<step n="2" level="0">
    <text>Video</text>
                <video type="remote">www.jujotech.com/
video.wmv</video>
</step>
</workflow>
```

To display PDF assets during a step, the step tag has a child **pdf** tag with the name of the PDF and:

- **attribute** type, local or remote.

You can add only one PDF in each step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>PDF</text>
        <pdf type="local">document.pdf</pdf>
    </step>
<step n="2" level="0">
    <text>Video</text>
                <pdf type="remote">www.jujotech.com/
                document.pdf</pdf>
</step>
</workflow>
```

To display schema assets during a step, the step tag has a child **schema** tag with the name of the schema and:

- **attribute** type, local or remote.

You can add only one schema in each step.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>PDF</text>
        <schema type="local">schema.png</schema>
    </step>
<step n="2" level="0">
    <text>Video</text>
                    <schema type="remote">www.jujotech.com/
                    schema.png</schema>
</step>
</workflow>
```

To navigate conditional instructions, the step tag has a child **choice** tag with the following child tags:

- a question,
- several answers to go to in another step, each answer is in **when** tag (minimum 2) with:
  - **select** attribute with the position of the answer;
  - **step** attribute with the step number where you want to go if the user chooses this answer.

Element order is a constraint.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<workflow id="JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>Choice</text>
        <choice>
                    <question>Low fluid level Clogged
                                        filter?</question>
                    <when select="1" step="14">Yes</when>
            <when select="2" step="15">No</when>
        </choice>
</workflow>
```

To fill a checklist, during each step, the step tag has a **step_checklist** child with the following child:

- checklist_description
- several **item**s with **id** attribute and with the following child:

- item_title
- item_description
- **status,** with several child **enum** tag, where are enumerate different status.

Element order is a constraint.

Example:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<workflow id=“JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>Checlist</text>
        <step_checklist>
                <checklist_description>Inspect cooling system check
                                list</checklist_description>
            <item id="1">
                    <item_title>Check water temperature</item_title>
                    <item_description>Check as Alarm if water temperature
                                        is above
85°F</item_description>
                    <status>
                        <enum>Check as Done</enum>
                        <enum>Check as Alarm</enum>
                    </status>
            </item>
            <item id="2">
                    <item_title>Check cooling water flow </item_title>
                    <item_description>Check as Alarm if water flow is
                                        unsufficient</item_description>
                    <status>
                        <enum>Check as Done</enum>
                        <enum>Check as Alarm</enum>
                    </status>
            </item>
        </step_checklist >
</workflow>
```

A workflow can have a **general checklist,** valid the entire work session, in this case it's not possible to have checklist during each step, the general checklist has the same structure of step checklist with the **wf_checklist** tag.

Example:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<workflow id=“JUJO_Example_001" version="1" title="Demo workflow" >
<step n="1" level="0">
        <text>General checlist</text>
        <wf_checklist>
                <checklist_description>Inspect cooling system check
                                list</checklist_description>
            <item id="1">
                    <item_title>Check water temperature</item_title>
```

```
                    <item_description>Check as Alarm if water temperature
                                       is above
85°F</item_description>
                    <status>
                        <enum>Check as Done</enum>
                        <enum>Check as Alarm</enum>
                    </status>
            </item>
            <item id="2">
                    <item_title>Check cooling water flow </item_title>
                    <item_description>Check as Alarm if water flow is
                                        unsufficient</item_description>
                    <status>
                        <enum>Check as Done</enum>
                        <enum>Check as Alarm</enum>
                    </status>
            </item>
        </wf_checklist>
</workflow>
```

XML Workflow and asset files must be compressed in a ZIP file.

This zip file must have the following properties:

- All files must be inside the root folder
- No subfolders are allowed
- Audio format must be mp3
- Video format must be mp4
- Image and schema format must be jpg or png
- Document format must be pdf
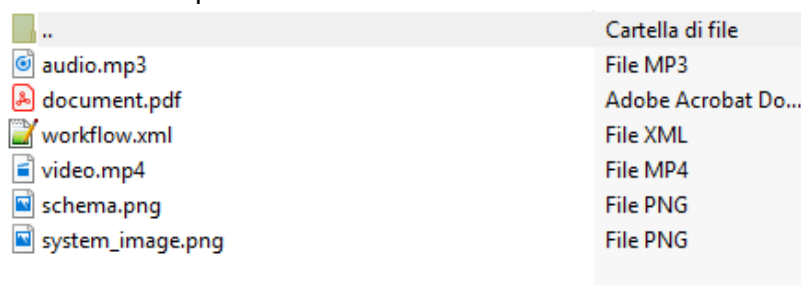
To browse workflow using Jujotech Worklogic, user has to load ZIP file in One Drive space.

ZIP files must be stored in WORKLOGIC_WS folder inside the root of One Drive space.

USERS OF THE SYSTEM

The field worker is the principal users of the WL. It is intended for performing the Standard Operating Procedure (SOP) on the field.

WORKLOGIC FLOW/STEPS

(all commands and activities are performed by Voice command)

1. AUTHENTICATION (FIELD WORKER)/ LOGGING IN

1. The field worker Logs-in using QR Code. Access to the OneDrive.

    The QR code can Load the all relevant WorkFlows for the current SOP.

    1. Generated by System Admin based on the Microsoft credentials and access to the One Drive or on premises repository.

    2. Generated by field worker through FusionRemote website. "generate QR code"
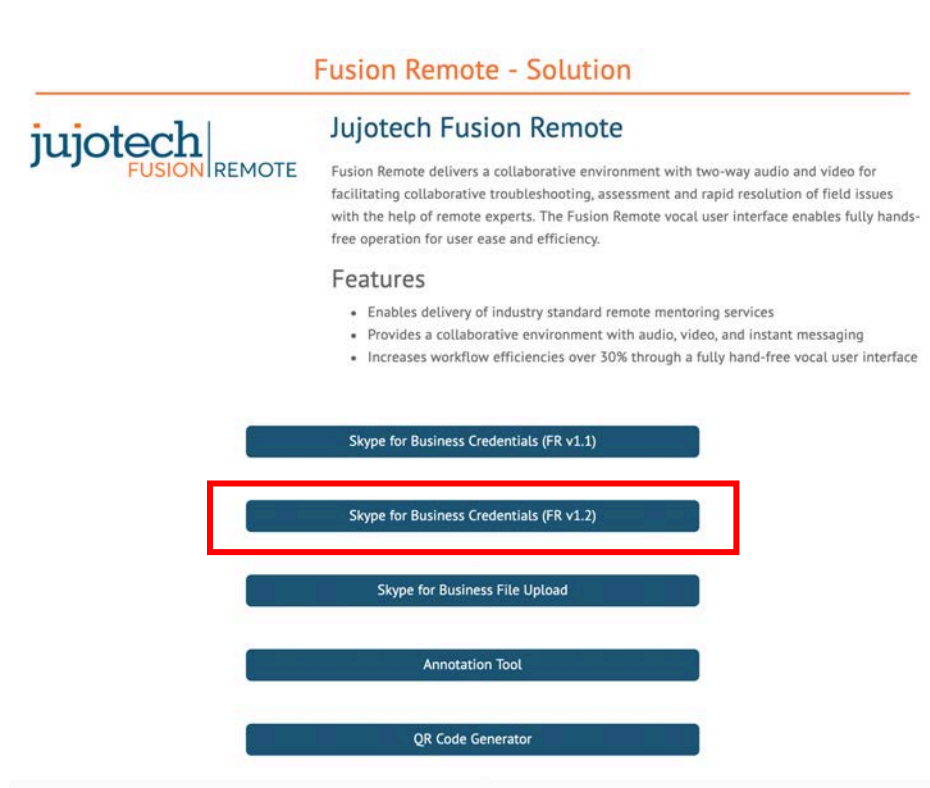
2. The field worker Logs-in with Skype For Business (SfB) credentials.

This feature is required for connecting to remote mentor. (process described in detail at **Fusion Remote** section)

2. DASHBOARD "**SAY, WORKLOGIC**"

1. List of available workflows for the SOP for the assigned task.

2. Sync Workflow. Identifies all the available workflow per user credentials.

3. Submit workflow. Completing the Work Flow.

4. Download a workflow with QR code. (Described in Authentication section above)

5. Search a key word in available workflows on the device.

3. WF - EXECUTION (AVAILABLE FUNCTIONALITIES) SAY, "**SELECT WORKFLOW X**" ADD IMAGE

1. WF can display all available rich media in any steps.
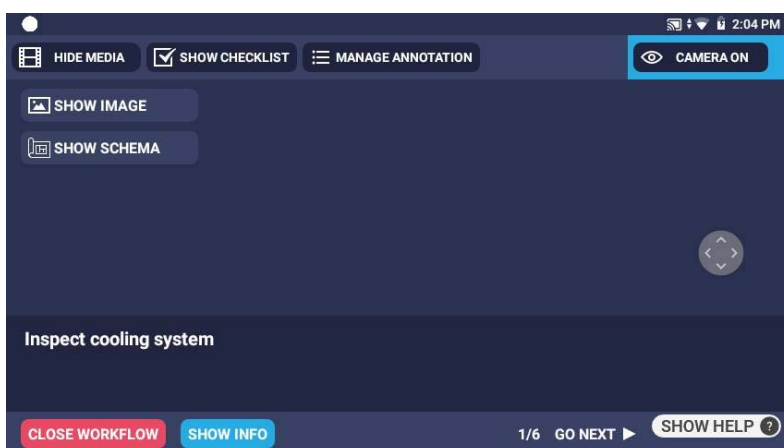
2. Fill Checklists/Forms during each step

3. Add Media Rich assets during a step

    Add Image, Video, and Audio

    Add Timestamp during a step

4. Save a workflow

5. Activate a Remote Assist with FR

6. Activate AR

4. THE WL SERVER

1. Manages the Media Repository Connection.

2. Manage the One Drive and One cloud repository.

3. The System API is to provide Workflow to a specific Account

4. The WL Server API to save assets connected to the workflow execution in the Media Repository

5. The WL Server API to provide Workflow connected to a specific QR

6. The System API to provide Information on assets connected to a specific QR

5. THE IOT SERVER

The System API to provide Information connected to a specific QR

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WORKLOGIC DETAIL FEATURES/COMMAND LIST

START WORKFLOW BY QR

Actor:	Field Worker, WL Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**SCAN QR CODE**". 2. The system will present the screen QR Code reader. 3. The Field Worker will frame the QR. 4. The system will decode WF URI encrypted in QR Code and sends a request to WL Server. 5. WL Server will respond with WF xml file and related asset URL. 6. The Field Worker Say, "**START WORKFLOW**". 7. The system will start workflow execution.
Exception:	Connection Down.

SETTING UP THE IMAGE QUALITY

Actor:	Field Worker
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**GO TO SETTINGS**". 2. The system shows settings page. 3. The Field Worker Say, "**MEDIA SETTING**" 4. The Field Worker Say, "**IMAGE <VALUE>**"
Exit conditions:	The system will set image quality to <value>, so when worker will take a picture, its quality will be set to <value>.

SETTING UP THE VIDEO QUALITY

Actor:	Field Worker.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**GO TO SETTINGS**". 2. The system will show settings page.

	3. The Field Worker Say, **"MEDIA SETTING"** 4. The Field Worker Say, **"VIDEO <VALUE>"**
Exit conditions:	The system will set video quality to <value>, so when worker will record a video, its quality will be medium.

SETTING UP THE ONE DRIVE CONNECTION AND FOLDER SET UP

Actor:	Field Worker, One Drive Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, **"GO TO SETTINGS".** 2. The system will show settings page. 3. The Field Worker Say, "**ONE DRIVE OPTIONS".** 4. The system will present One Drive Options page. 5. The Field Worker Say, "**TEST CONNECTION**". 6. The system performs a test to connect to One Drive Server. 7. One Drive Server get the connection status.
Exit conditions:	The system will visualize the connection status.
Exception:	Connection Down, One Drive Connection Error.

FOLDER SETUP

Actor:	Field Worker, One Drive Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, **"GO TO SETTINGS"**. 2. The system will show settings page. 3. The Field Worker Say, "**ONE DRIVE OPTIONS**". 4. The system will present One Drive Options page. 5. The Field Worker Say, "**CHOSE REMOTE FOLDER**". 6. The system will interrogate One Drive Server to have folder list. 7. One Drive Server will get the folder list. 8. The system will present remote folder list. 9. The Field Worker Say, "**SELECT FOLDER 3**".
Exit conditions:	The system selects remote folder WORKLOGIC to upload WL assets.
Exception:	Connection Down, One Drive Connection Error.

LIST AVAILABLE WORKFLOWS

Actor:	Field Worker, WL Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**SHOW WORKFLOW LIST**". 2. The system will request WF list to WL Server. 3. WL Server will return WF list.
Exit conditions:	The system will present the Workflow list.
Exception:	Connection Down.

START A WORKFLOW

Actor:	Field Worker, WL Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**SHOW WORKFLOW LIST**". 2. The system will request WF list to WL Server. 3. WL Server will return WF list 4. The system will present the Workflow List. 5. The Field Worker Say, "**SELECT WORKFLOW 2**".
Exit conditions:	The system will start workflow 1 execution.
Exception:	Connection Down

SUBMIT A WORKFLOW

Actor:	Field Worker, WL Server.
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**SHOW SAVED WORKFLOW**". 2. The system will present the Saved Workflow List. 3. The Field Worker Say, "**SELECT WORKFLOW 3**" 4. The system will show a WF preview with personal additional content. 5. The Field Worker Say, "**SUBMIT WORKFLOW**". 6. The system will present the following confirm popup: *Are you sure to submit this workflow*?

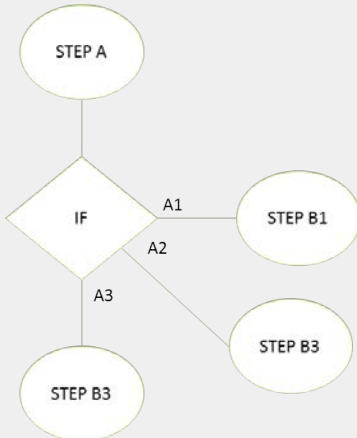|	
	7. The Field Worker Say, "**YES**". 8. The system will submit WF to WL Server. 9. WL Server will perform the saving.
Exit conditions:	The system will show submit response and will delete the WF from the device.
Exception:	Connection Down.

SEARCH THE "KEYWORD" IN WORKFLOWS LOADED ON HMT

Actor:	Field Worker, WL Server
Entry conditions:	Field Worker will be authenticated, and the system will present the WF Dashboard.
Flow of events:	1. The Field Worker Say, "**SHOW WORKFLOW LIST**". 2. WL Server will return WF list. 3. The Field Worker Say, "**SEARCH WORKFLOW**". 4. The system will show search box. 5. The Field Worker Say, "**DICTATION**". 6. The system will present voice input box. 7. The Field Worker Say, "**<any search word>**". 8. The system will insert "**<any search word>**" inside input box. 9. The Field Worker Say, "**OK**".
Exit conditions:	The system will show workflows that match with searched words.
Special Requirements:	None
Exception:	Connection Down.

SEQUENTIAL AND CONDITIONAL WORKFLOW

Actor:	Field Worker
Entry conditions:	The system will show information for the step A execution.
Flow of events:	1. The Field Worker Say, "**GO NEXT**".
Exit conditions:	The system will show information for the step B execution.

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CONDITIONAL

Actor:	Field Worker
Entry conditions:	The system will show information for the step A execution.
Flow of events:	1. The system will ask the Field Worker to select between a list of condition (i.e. A1, A2 and A3). 2. The Field Worker Say, "**SELECT <A1> CONDITION**". 3. The Field Worker Say, "**GO NEXT**".
Exit conditions:	The system will show information for the step B1 execution.
Exception:	None.

MANAGING RICH MEDIA (PHOTO, VIDEO, AUDIO, TEXT, AND DOCUMENTS)

Actor:	Field Worker
Entry conditions:	The system will show information for the step A.
Flow of events:	1. The Field Worker Say, the command for Media Navigation (**SHOW PICTURE, PLAY VIDEO, PLAY AUDIO**). 2. The system will open the selected media. 3. The Field Worker will use command related to the navigation of the selected media: - PICTURE: **ZOOM LEVEL <1-5>** - AUDIO/VIDEO: **STOP, PAUSE, PLAY.** 4. The Field Worker will close the Media navigation mode Say, "**NAVIGATE BACK**".
Exit conditions:	The system will show information for the step A execution.

DOCUMENTS

Actor:	Field Worker
Entry conditions:	The system will show information for the step A.
Flow of events:	1. The Field Worker Say, "**OPEN TECHNICAL DOCUMENT**". 2. The system will open the Technical Document. 3. SEE APPENDIX A: pdf reader (page 54) 4. The Field Worker will close the Technical Document Say, "**NAVIGATE BACK**".
Exit conditions:	The system will show information for the step A execution.

CHECK LIST

Actor:	Field Worker
Entry conditions:	The system will show information for the step A.
Flow of events:	1. The Field Worker Say, "**OPEN CHECK LIST**". 2. The system will show all the elements in the checklist. 3. The Field Worker will select performed task: "**TASK <N> DONE**" 4. The Field Worker Say, "**CLOSE CHECK LIST**." 5. The Field Worker Say, "**GO NEXT**".
Exit conditions:	The system will show information for the step A execution.
Exception:	Check List not filled.

Actor:	Field Worker
Entry conditions:	The system will show information for the step A.
Flow of events:	1. The Field Worker Say, "**RECORD VIDEO, RECORD AUDIO, ADD TIMESTAMP, TAKE PICTURE**". 2. The system will provide tool to manage the acquisition of selected media. 3.The Field Worker will manage the acquisition and receive feedback. 4. The system will show feedback about acquisition of Media.
Exit conditions:	The system will show information for the step A execution.

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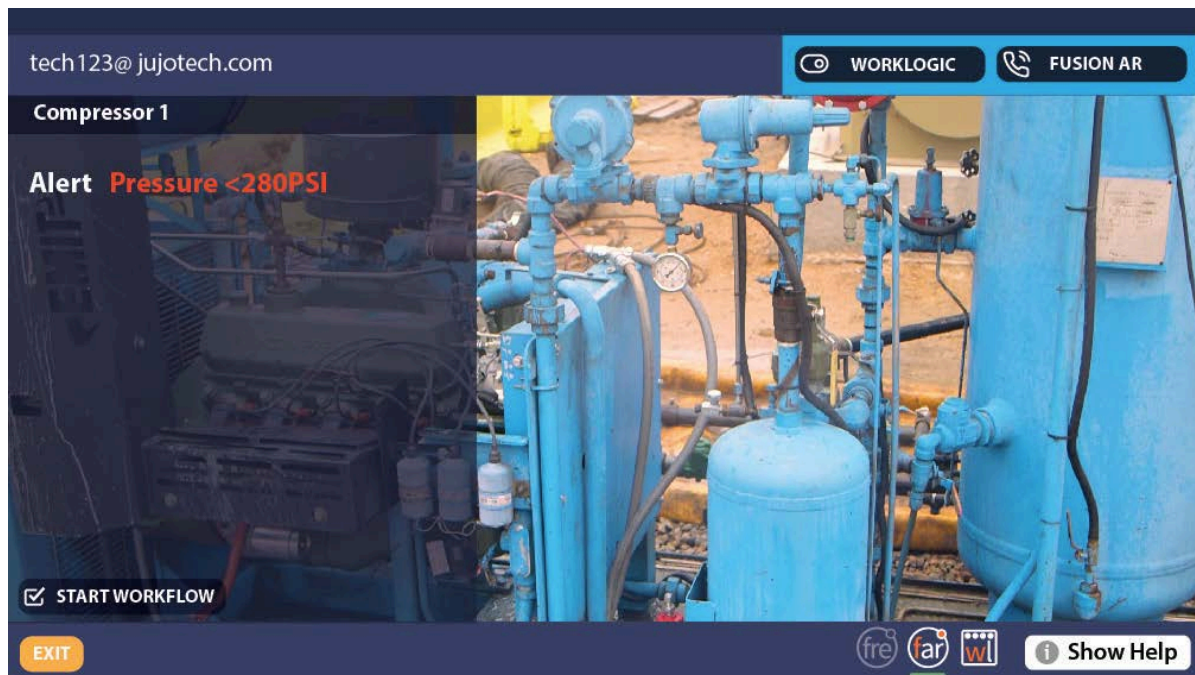# SHOW INFORMATION / ADD INFORMATION

Actor:	Field Worker
Entry conditions:	The system will show information for the step A.

Flow of events:	1. The Field Worker Say, "SHOW ADDED INFO".
	2. The system will provide the list of added info.
	3. The Field Worker Say, command to navigate the INFO:
	    - **SHOW IMAGE**
	    - **PLAY VIDEO**
	    - **PLAY AUDIO**
	    - **SHOW TIME STAMP.**
	4. The Field Worker close the Media Say, "**NAVIGATE BACK**".
	5. The Field Worker close the Added Info List Say, "**NAVIGATE BACK**".

Exit conditions:	The system will show information for the step A execution.

CALLING REMOTE MENTOR (FUSION REMOTE)

Actor:	Field Worker, SfB Server
Entry conditions:	The system will show information for the step A.
Flow of events:	1. The Field Worker Say, "**CALL REMOTE SUPPORT**". 2. The system will start a SfB meeting with SfB email contact connected to the workflow. 3. The Field Worker will close the Call Say, "**NAVIGATE BACK/TERMINATE CALL**'.
Exit conditions:	The system will show information for the step A execution.
Exception:	Connection Down.

FUSION AR (MONITOR MODE)

The Fusion AR is an open API Augmented Reality (AR) interface for the connected worker. The Fusion AR provides full integration of existing IIoT alerts and analytics via open API ingestion. Fusion AR can improve KPI's with instant equipment alerts and it is fully integrated with Fusion Remote for maintenance assist.

FEATURES:

- Real-time hands-free OnDemand training
- Reduction in equipment downtime
- Actionable Workflow tied to IIoT analytics and information visualization
- Equipment service status and point of failure information
- Overlay of the documentation on the point of failure
- Annotation capabilities for the remote mentor
- Annotation capability for connected worker with use of Companion APP (Available separately for iOS and Android tablets and smartphones)
- Fully integrated with Fusion Remote for expert support

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ANNOTATION TOOL (WEB BASE)

During a Skype for Business meeting, the instant messaging panel (chat) is used for exchanging images and video clips. While the meeting is in session, images stored on FusionRemote service can be annotated with text, hand-drawing, or PiP (Picture in Picture). The annotation Tool is available in the FusionRemote webpage. This tool is designed to be used by "Remote Mentor".
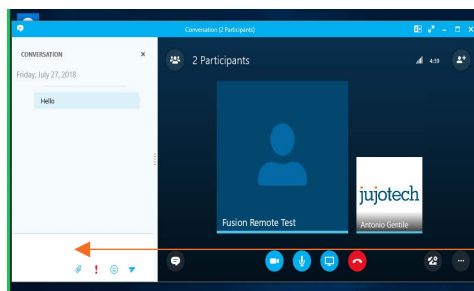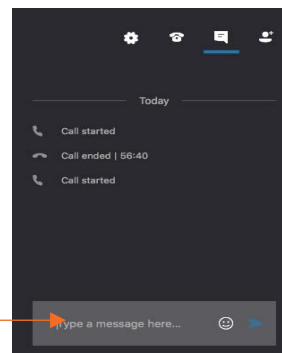

STEPS:

1. Load an image from the FusionRemote Server
2. Annotate the image

    A. Add text

    B. Add free-hand drawings

    C. Add another image (Picture in Picture)

3. Save the image on the server
4. Copy the image URL on clipboard
5. Paste the URL on the Skype for Business Chat

Here paste the URL from the meeting chats

*Chat on Skype for Business for Windows*

Chat on Skype for Business for Mac

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ANNOTATION TOOL (MOBILE-BASED) COMPANION APP

While the meeting is in session, images captured with FusionRemote on a smart headset can be annotated with text, hand-drawing, or PiP (Picture in Picture) using the companion app. (*Available in App Store and Google Play*)

USE CASE A (TAKING PICTURE THEN ANNOTATE).
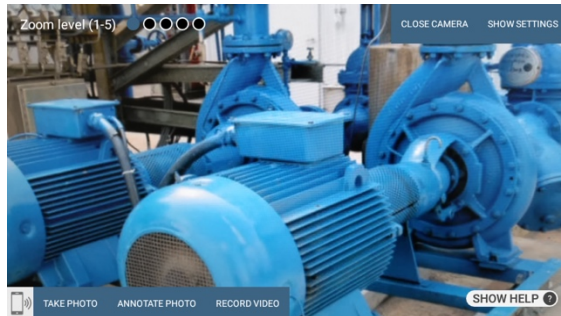
- Say, "**Open Camera**" on HMT then Say, "**Take Photo**"
- Say, "**Annotate Photo**"
    1. Pair the HMT with the Fusion Remote Companion app, by framing the QR displayed on the smartphone screen (only if devices aren't yet paired)
    2. On the smartphone, after pairing, accept the photo
    3. Annotate the photo
    4. Send the photo back to the HMT
- Download the new image, now available both on the HMT and to all participants to the meeting via chat.

## USE CASE B (DOWNLOAD THE PICTURE FROM CHAT LINK THEN ANNOTATE).
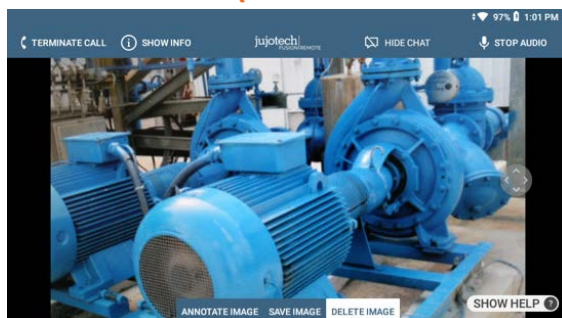
- Say, "**Show Chat**" on HMT then Say, "**Download Image <n>**"
- Say, "**Annotate Image**"
    1. Pair the HMT with the Fusion Remote Companion app, by framing the QR displayed on the smartphone screen (only if devices aren't yet paired)

2. On the smartphone, after pairing, accept the photo
3. Annotate the photo
4. Send the photo back to the HMT

- Download the new image, now available both on the HMT and to all participants to the meeting via chat

OPERATIONS

- "**Annotate photo**" or "**Annotate Image**"

   1. Pair the HMT with the Fusion Remote Companion app, by framing the QR displayed on the smartphone screen (only if devices aren't yet paired)

   2. On the smartphone, after pairing, accept the photo

   3. Annotate the photo

   4. Send the photo back to the HMT

- Download the new image, now available both on the HMT and to all participants to the
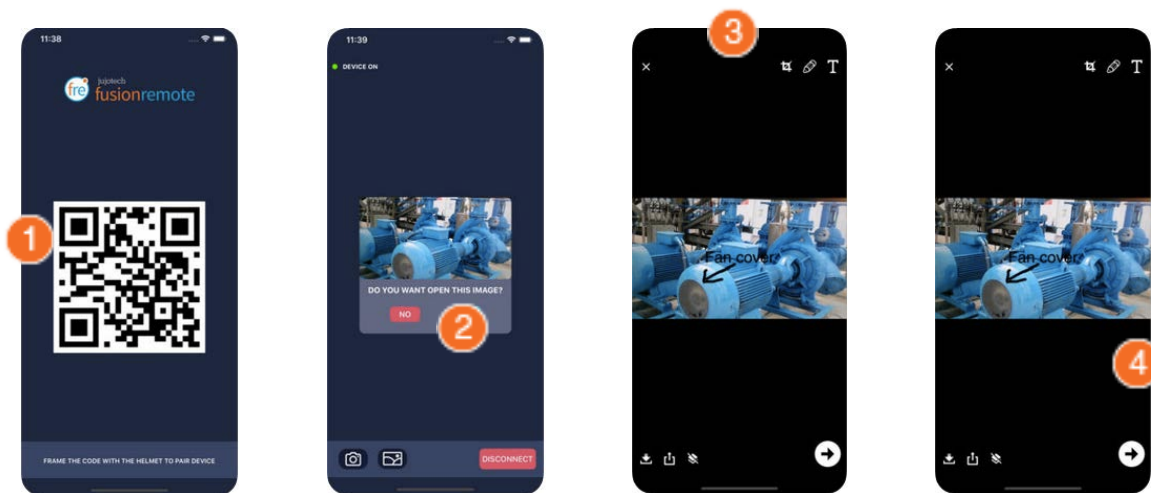
COMPANION APP TOOLS DESCRIPTION

ANNOTATION TOOLS
1. Resize
2. Free Drawing
3. Text

SHARING TOOLS
1. Save on Album
2. Share
3. Remove Annotation
4. Send back to HMT

Reference Section:
List of Voice Commands

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VOICE COMMANDS

USER'S SKYPE FOR BUSINESS CREDENTIALS ACQUISITION

Voice Command	Action
"Scan QR Code"	Scans an encrypted QR Code with User's SfB Credentials
"Reset Account"	Deletes stored credentials and open the Barcode Reader to scan a new QR Code
"Login"	Accesses the Microsoft Online SfB Authentication Page
"Show Info"	Opens Built-in Diagnostics Panel

USER'S SKYPE FOR BUSINESS ONLINE AUTHENTICATION

AND TERMS OF USE ACCEPTANCE

Voice Command	Action
"Enter Username"	Fills in the username field using the Username information stored in the app
"Set Password"	Fills in the password field using the Password information stored in the app
"Reset Credentials"	Deletes stored user's credentials and open the Bar Reader to scan a new credential QR Code
"Next" **"Cancel"**	Proceeds to the next step Cancels the operation
"Sign In"	Proceeds with Authentication on SfB
"Yes" **"No"**	Authorizes Stay Signed of SfB Account
"Accept Terms" **"Decline Terms"**	Accepts the app Terms of Use Declines Terms of Use. Logout from SfB

Voice commands highlighted in blue

Note: Available voice commands are active only on the screens that display them

LIST OF CONTACTS OPERATION

Voice Command	Action
"Online Contacts"	Shows online contacts ordered alphabetically
"Recent Contacts"	Shows recent called contacts ordered alphabetically
"Contact Names"	Shows all contacts ordered alphabetically
"Contacts with <letter>"	Scrolls the contact list to the selected letter
"Select <contact full name>" **"Select contact <number>"**	Selects a contact to call. The selected contact is highlighted in blue. In case of wrong selection, repeat the vocal prompt
"Set busy/online"	Sets the HMT User presence state, as shown in the upper left corner in green, orange.

LIST OF MAIN OPERATION AND CALL INITIATION/ANSWERING

Voice Command	Action
"Go to menu"	Navigates to the Menu Page
"Start Call"	Initiates a call with the selected contact. During the call, the selected contact is referred to as Remote Expert
"Join Meeting"	Initiates a call using a meeting link provided as a QR.
"Exit"	Dismisses the app. Does not logout from SfB
"Logout"	Logs out from SfB and dismiss the app
"Accept call" **"Decline call"**	Accepts an incoming call Declines the incoming call
"Show Info"	Opens Built-in Diagnostics Panel

Voice commands highlighted in blue

LIST OF MENU PAGE OPERATION

Voice Command	Action
"Reset Account"	Deletes stored credentials and open the Barcode Reader to scan a new QR Code
"Login"	Accesses the Microsoft Online SfB Authentication Page
"Show Settings"	Opens the Camera Settings Panel
"Show Info"	Opens the Built-in Diagnostics Panel

LIVE AUDIO/VIDEO COLLABORATION AND INSTANT MESSAGING OPERATION

Voice Command	Action
"Terminate Call"	Stops the current call and exit the meeting
"Start/Stop Audio"	Activates/Deactivates the device microphone. Incoming audio cannot be deactivated
"Start/Stop My Stream"	Shows/Hides the device own video stream, visible as Picture in Picture (PiP)
"Select My Stream"	Select the device own video stream to full screen
"Select Participant <number>" **"Select <participant name>"**	Sets the stream <number> full screen
"Show participants"	Shows the Participants Panel and all participants stream
"Show/Hide Chat"	Shows/Hides the instant messaging chat panel
"Write Message"	Opens the vocal keyboard to dictate messages using the HMT-1 speech-to-text processor
"Open Camera"	Opens the HMT HD Camera and captures an image or record a video clip. Images/Video clips are uploaded immediately after the capture. The corresponding URL is sent via chat to the Remote Expert.
"Show Info"	Opens Built-in Diagnostics Panel

Voice commands highlighted in blue

CAMERA OPERATION

Voice Command	Action
"Close Camera"	Closes the camera panel
"Show Settings"	Opens the Camera Settings Panel
"Take photo"	Captures a still image. The image is immediately uploaded, and a URL is placed on the meeting chat for downloading. Multiple images may be captured and uploaded
"Record Video"	Records a video clip. Maximum duration can be selected in the Settings Panel and the default length is set to 15 seconds. Multiple video clips can be recorded and uploaded
"Zoom Level <number 1-5>"	Executes the desired zoom level on the camera image

CAMERA SETTINGS OPERATION

Voice Command	Action
"Hide Settings"	Close the Camera Settings Panel
"3 seconds | 5 seconds | 7 seconds"	Timer duration for remote image capture. Current selection is shown in green
"15 seconds | 30 seconds | 1 minute"	Video clip duration. Current selection is shown in green
"Video Low | Video Medium | Video High"	Video quality settings. Current selection is shown in green
"Image Low | Image Medium | Image High"	Image quality settings. Current selection is shown in green

Voice commands highlighted in blue

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SKYPE FOR BUSINESS DESKTOP OPERATION

A Skype for Business desktop or mobile client can be used to place and receive calls to/from Fusion Remote running on an HMT

KEY FEATURES

Audio/video live communication
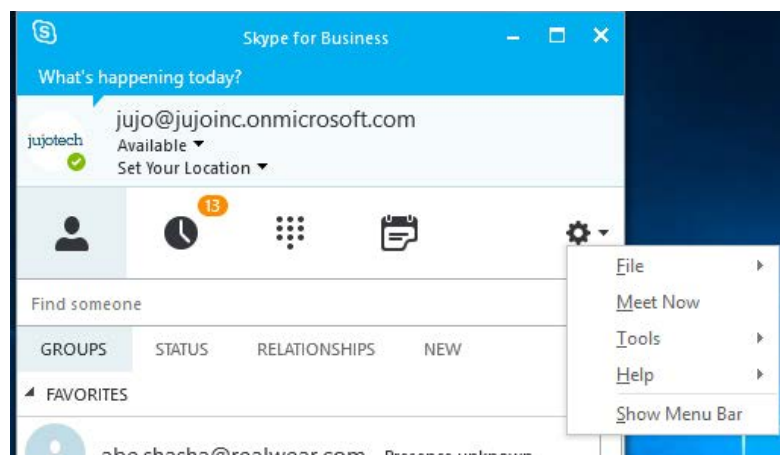Instant messaging
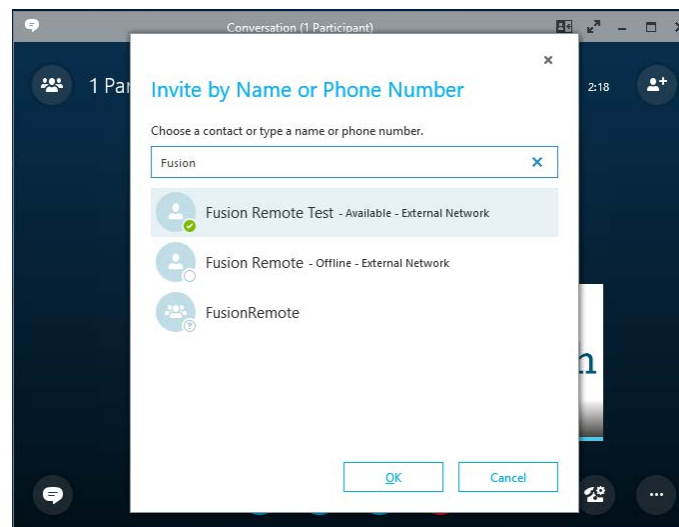Image/File sharing
Remote image capture

HOW TO PLACE A CALL TO FUSION REMOTE ON WINDOWS

Step 1: To start a meeting with an HMT click on the "Meet Now" command in the "Conversations" Menu (*Figure 1*)

Step 2: Click on the "People" icon (*Figure 2*)

Step 3: Search the HMT contact name among the contacts using the "Invite more people" search box (*Figure 2*)

Step 4: Double click on the desired contact name shown in the result list. Repeat to add more HMT contacts to the call

The meeting is now live.

Figure 1

Figure 2

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HOW TO PLACE A CALL TO FUSION REMOTE ON MAC

Step 1: To start a meeting with an HMT click on the "Meet Now" command in the "Conversations" Menu (*Figure 1)*

Step 2: Click on the "People" icon (*Figure 2*)

Step 3: Search the HMT contact name among the contacts using the "Invite more people" search box (F*igure 2*)

Step 4: Double click on the desired contact name shown in the result list. Repeat to add more HMT contacts to the call

The meeting is now live.
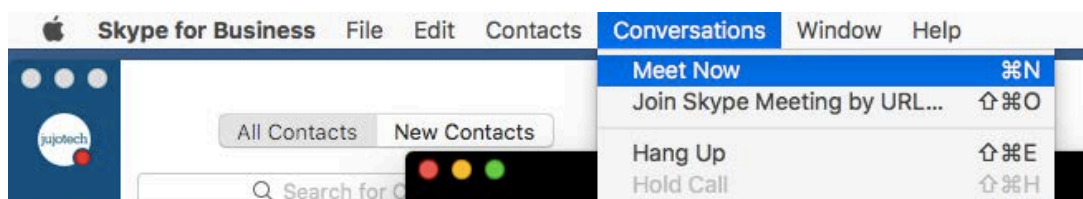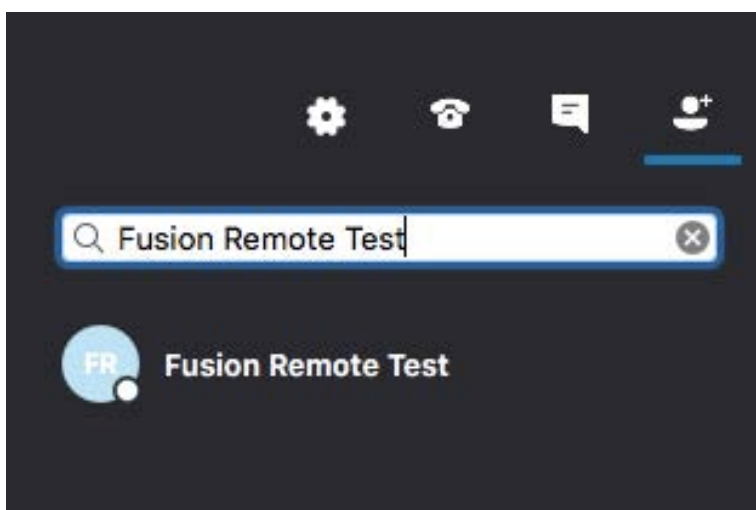
Figure 1

Figure 2

USING INSTANT MESSAGING ON WINDOWS

Step 1: Click on the "Messages" icon to start an instant messaging session with everybody on a meeting (*Figure 1*)

Step 2: Use the text box provided to send and receive text messages

REMOTE IMAGE CAPTURE

An HD still image can be captured on the HMT without the user intervention

Step 1: Write the command "**takephoto**" in the chat. The HMT will capture an image and send it as URL on the chat

Step 2: Access the image by clicking on the URL link provided
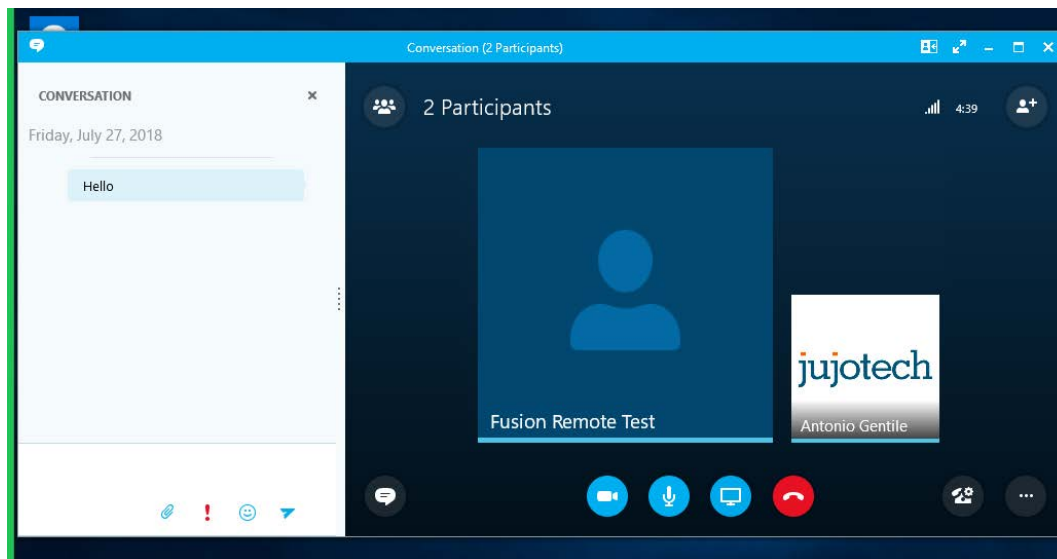
Figure 1

# USING INSTANT MESSAGING ON A MAC

Step 1: Click on the "Messages" icon to start an instant messaging session with everybody on a meeting (*Figure 1*)

Step 2: Use the text box provided to send and receive text messages

REMOTE IMAGE CAPTURE

An HD still image can be captured on the HMT without the user intervention

Step 1: Write the command "**takephoto**" in the chat. The HMT will capture an image and send it as URL on the chat (*Figure 2*)

Step 2: Access the image by clicking on the URL link provided
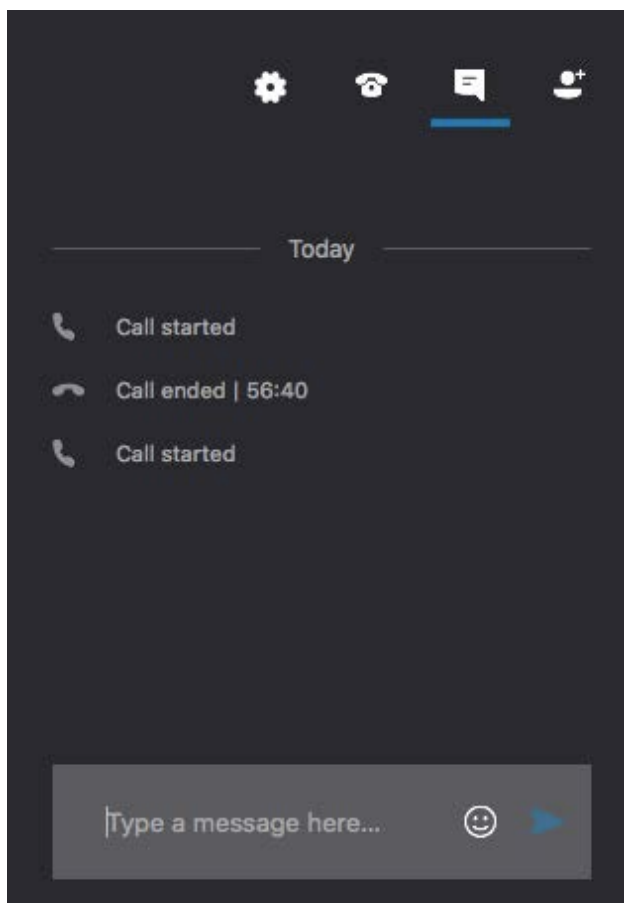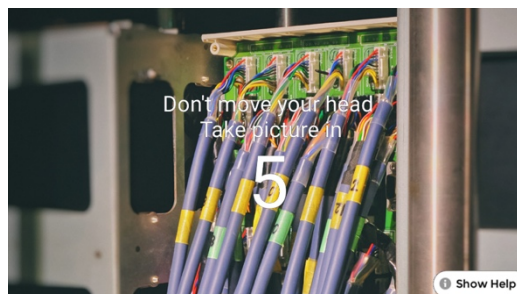
Figure 1

Figure 2

IMAGE/FILE SHARING

Step 1: Clicking the "**Skype for Business File Upload**" button on the Fusion Remote service page
at https://fusionremote.YourDomain.com to share files/images with the HMT. For POC
or Trials, a temporary service is offered at the following URL:
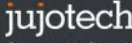http://fusionremote.jujotech.com

Step 2: Click the "**Browse**" button on the Fusion Remote service page to search for the
file/image to share

Step 3: Click the "**Upload**" button on the Fusion Remote service page to upload the file/image
on the service

Step 4: Click on the "**Copy to clipboard**" button to copy the generated URL on the clipboard

Step 5: Paste the URL into the message box to share it with the meeting participants.

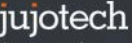jujotech
Augmenting Your Digital Experience

FusionRemote - Skype for Business File Upload

Select file* (Max file size 5MB | Valid extensions .jpg .jpeg .png .pdf)
Browse... FR_20182002_182028.jpg

Upload File

File uploaded!

File URL
https://fusionremote.jujotech.com/sfb-webserver/uploads/FR_20182002_182028.jpg

Copy to clipboard

jujotech
Augmenting Your Digital Experience
Copyright © 2018 Jujo, Inc. | 1023 Walnut St., Suite 100, Boulder, CO 80302 | info@jujotech.com | Terms and Privacy

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TECHNICAL SUPPORT AND ADDITIONAL RESOURCES

For additional technical support, please contact your Jujotech representative or write to: support@jujotech.com.
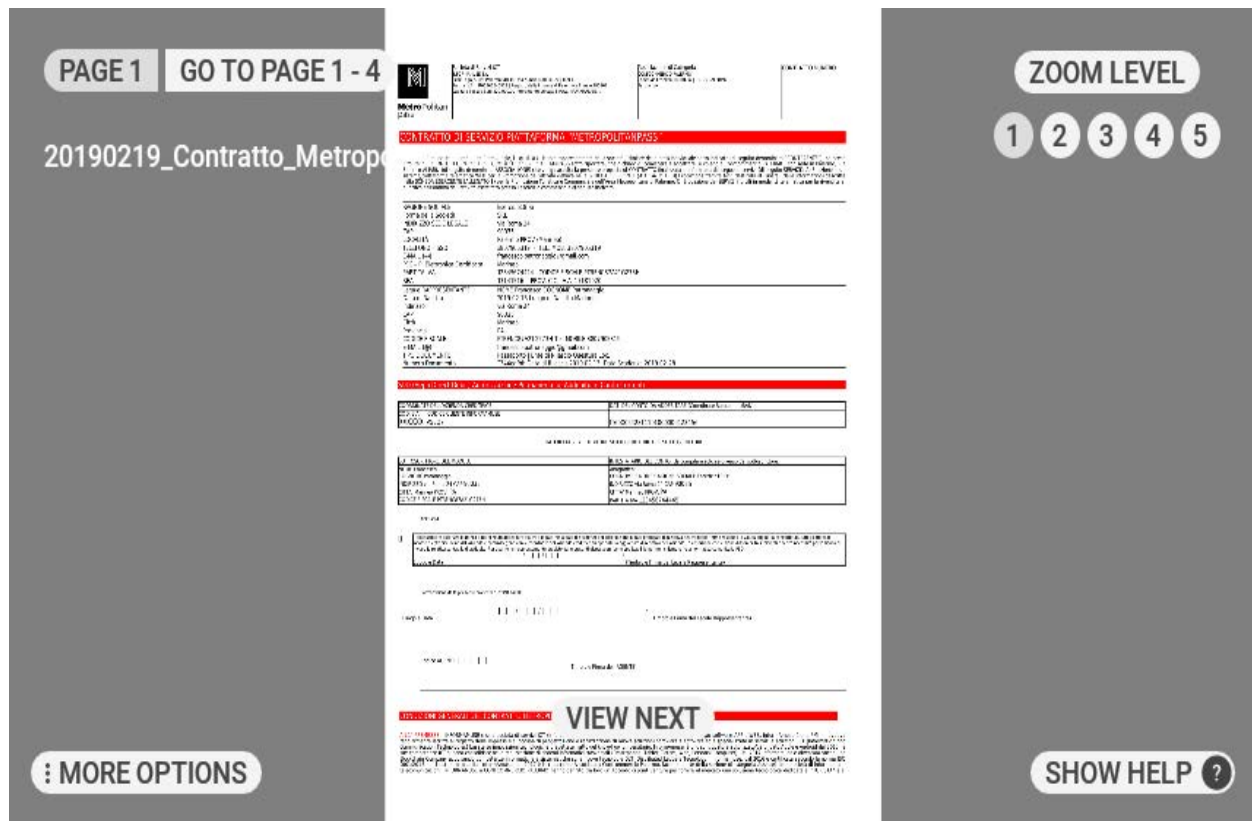
ADDITIONAL RESOURCES:

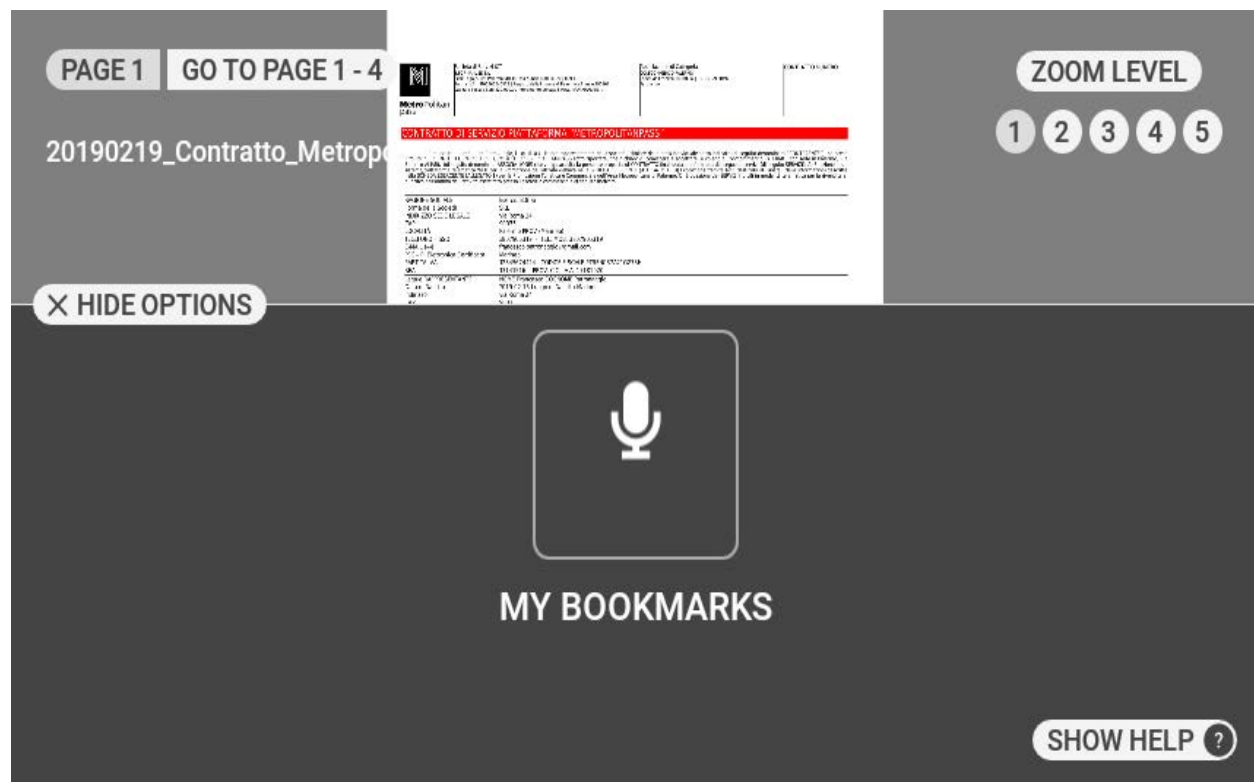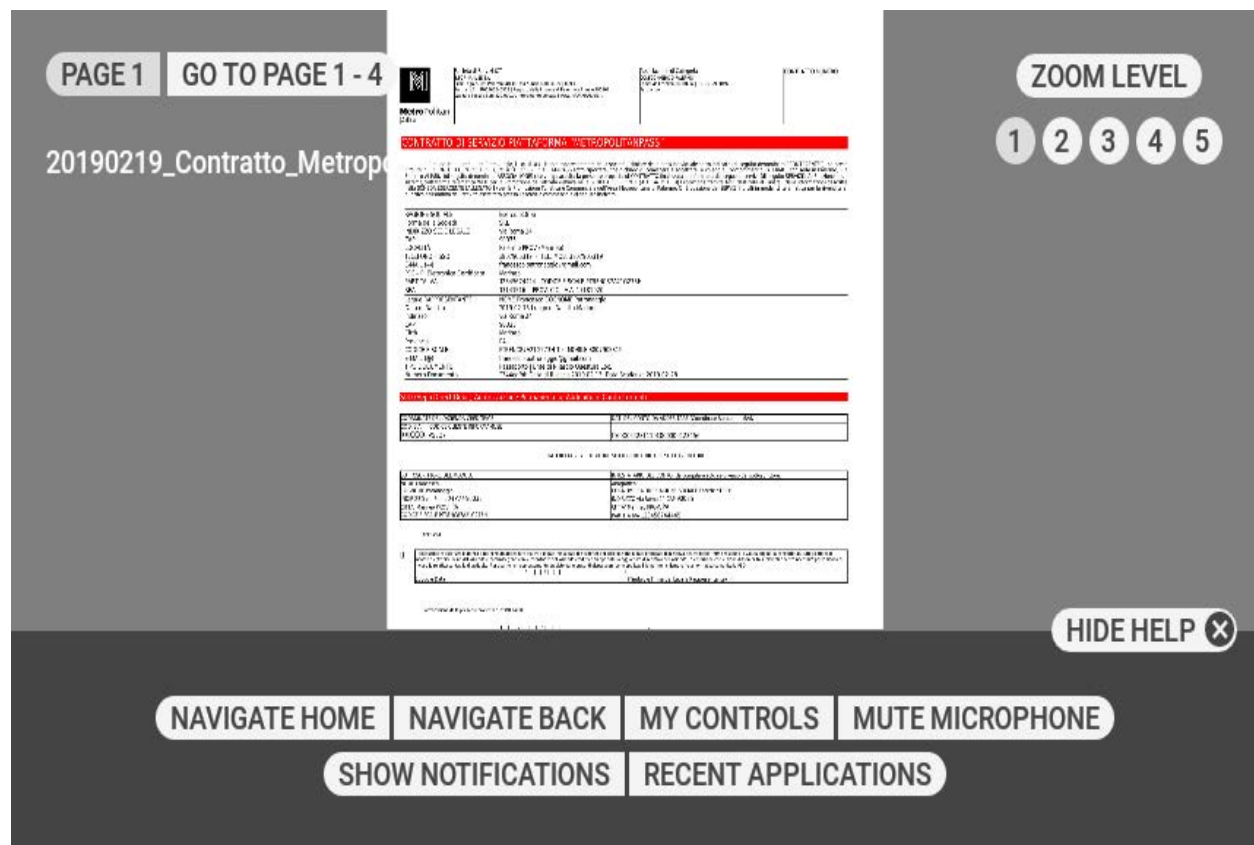HMT User Guide and Support page: https://www.realwear.com/support

Skype for Business Meeting setup help page: https://support.office.com/en-us/article/set-up-a-skype-for-business-meeting-in-outlook-b8305620-d16e-4667-989d-4a977aad6556.

APPENDIX A

The available RealWare HMT App for PDF reading does not allow search. To search inside a document, we need to find out an ad hoc library to manage PDF and integrate our code with VUI Interaction.

SCREENSHOTS

far fusionar

PAGE 1 | GO TO PAGE 1 - 4

20190219_Contratto_Metrop

ZOOM LEVEL

1 2 3 4 5

HIDE HELP ⊗

NAVIGATE HOME | NAVIGATE BACK | MY CONTROLS | MUTE MICROPHONE

SHOW NOTIFICATIONS | RECENT APPLICATIONS

PAGE 1 | GO TO PAGE 1 - 4

20190219_Contratto_Metrop

ZOOM LEVEL

1 2 3 4 5

✕ HIDE OPTIONS

MY BOOKMARKS

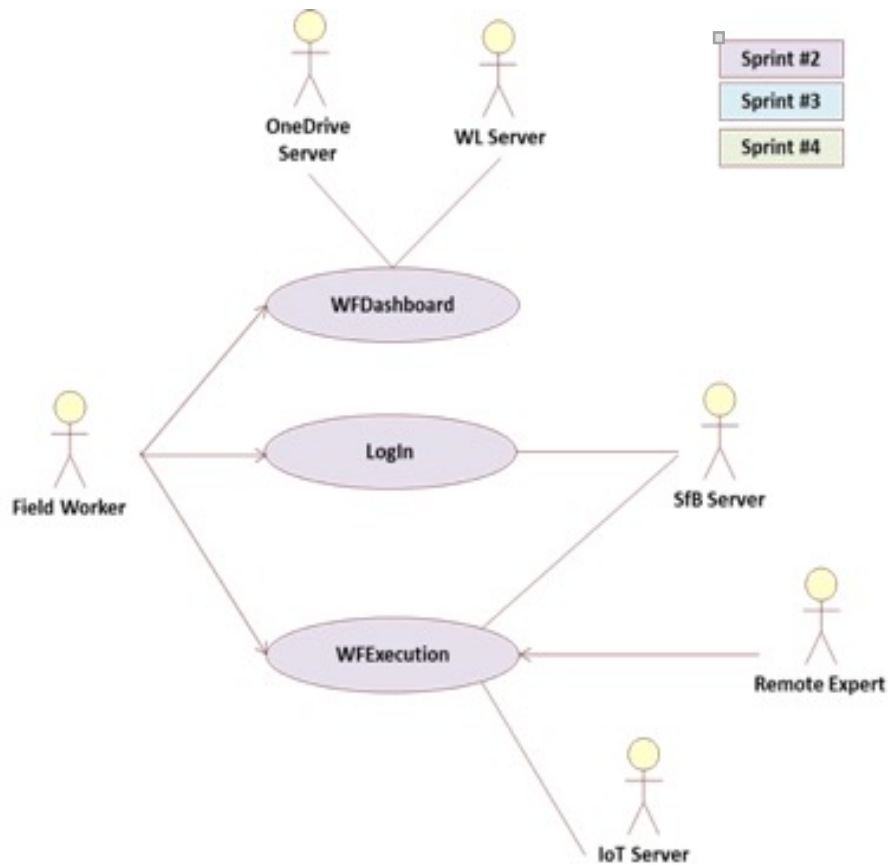SHOW HELP ?

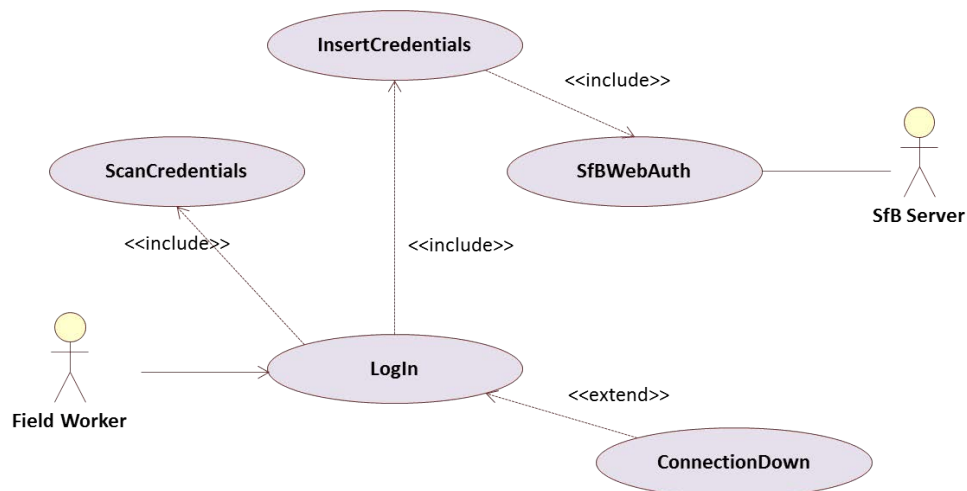# SYSTEM MODELS

USE CASE MODEL

Figure 1 Use Case Mode
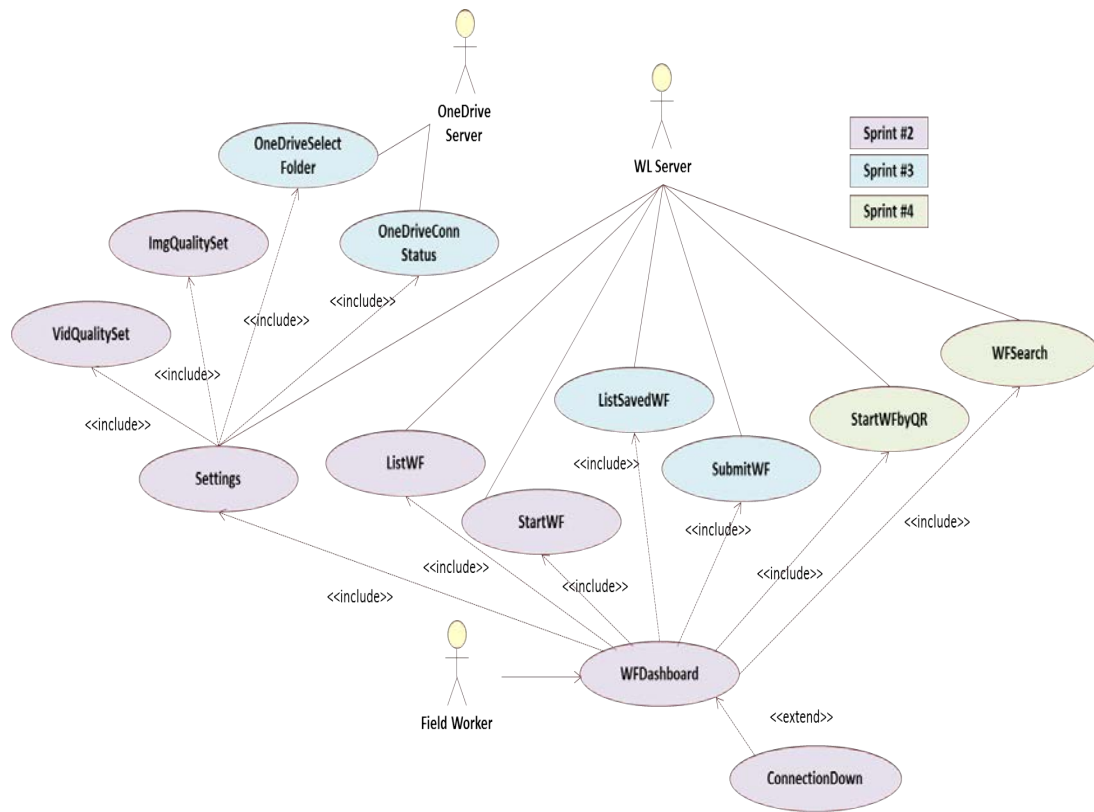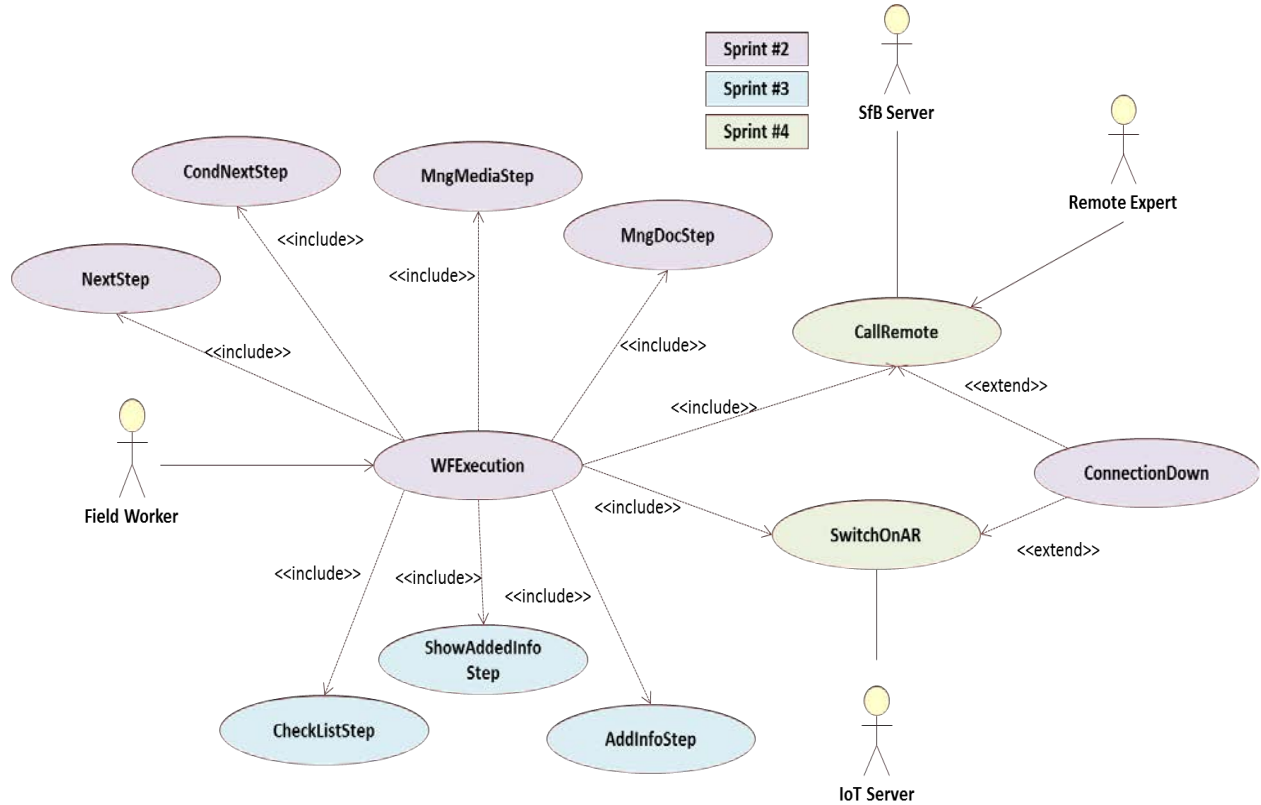

Figure 2 Use Case – LogIn

Figure 4 Use Case – WFDashboard

Figure 5 Use Case – WFExecution