Honeywell

Immersive Field Simulator
R110.1

Software Change Notice

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Contents

1 ABOUT THIS GUIDE

This Software Change Notice contains important information that must be read prior to installing and working with the Immersive Field Simulator (IFS). It also contains known issues and additional information.

Purpose

Provides important information that must be read prior to installing and working with the IFS.

Revision history

Version	Date	Description
A	December 2021	Initial release of the guide.

Introduction

IFS is an on-premise solution that provides a virtual platform to experience the virtual plant walkthrough and component interaction. With IFS, instructors and field operators can experience the plant in a virtual platform. IFS brings the virtual plant experience to the training room wherein the virtual training can be carried out in a hazard-free environment.

The virtual platform provides significant advantages of being available on-demand, giving freedom of accessibility, providing hardware independence, and delivering an immersive learning experience.

Intended audience

- Operations Personnel like Field Operators Trainees who use IFS Client application to learn operation tasks in a plant through a virtual platform.
- Trainers to create lessons using IC Management Console.

Skills required

Experience of working in a Microsoft Windows environment and experience in Augmented Reality and Virtual Reality would be helpful.

2 CONTENT OF RELEASE

Immersive Field Simulator

Product	Release
Immersive Field Simulator	R110.1

Immersive Field Simulator content

The current release of IFS consists of the following components.

Component	Part number
IFS Installation Package	51157246
IFS R110.1 Installation and Configuration Guide	IMSDOC-X712-en-110
IFS R110.1 User Guide	IMSDOC-X711-en-110
IFS R110.1 Asset Catalog Management Guide	IMSDOC-X708-en-110
IFS R110.1 Software Change Notice (This Document)	IMSDOC-X713-en-1101
IFS R110.1 Lessons User Guide	IMSDOC-X758-en-110

The following is the Process training simulator version.

Software	Version
Honeywell Forge Workforce Competency R520.1	R520.1

3 RELEASE OVERVIEW

Release description

Honeywell's IFS provides the virtual replica of a physical plant, integrated with UniSim Operator Training Simulator (OTS). IFS allows field and panel operators to practice different plant operations in a virtual, safe, and simulated environment.

The main features of IFS are:

- Plant Walkthrough
- Plant Operations
- Lesson Editor
- Guided Lesson
- Lesson Assessment
- Dynamic Animation

> **NOTE:** IFS supports PC Client mode and also enables the trainee to get trained on troubleshooting issues in plant.

The major benefits of IFS are:

- Provides realistic environment to train field and panel operators collaboratively in a safe and simulated environment.
- Improves communications and teamwork skills.
- Makes learning engaging and challenging.
- Increases efficiency.
- Reduces costly error.
- Increases productivity.

The following features are included in this release.

- **Lesson Editor:** This feature allows Admin or Trainer to create lessons referring to Standard Operating Procedures (SOPs). User can add lesson steps like General information, PPE selection, Tag-linked information, Tag-linked acknowledgement, Tag-linked interaction (without tool), Tag-linked interaction (with tool), Field Operator (FO)-Panel Operator (PO) communication. Admin or Trainer can publish the lesson after creation so that Trainee can launch the lessons from the client application and execute the lessons. The lessons are mapped to

the Exercise feature of OTS.

- **Guided Lesson:** This feature allows the user or trainee to learn lessons. User can learn steps like General information, PPE selection, Tag-linked information, Tag-linked acknowledgement, Tag-linked interaction (without tool), Tag-linked interaction (with tool), FO-PO communication. User also gets voice narration of the steps to be performed in IFS. Trainee can select the lessons from the published list. Lesson can be started by loading Exercise from the OTS.

- **Lesson Assessment:** This feature allows the trainee or a user to assess their lesson competency. There is no guidance from the system and user must perform the task in the correct order. The OTS Checklist feature is used for back-end assessment and an Assessment report is generated from the OTS.

- **Dynamic Animation:** This feature allows the Field Operator to visualize how the internal process functions based on the actions in the plant. These animations are dynamically integrated with the process variables from the OTS. In reality, the Field Operator cannot see these visualizations inside the equipment, these dynamic animations help to improve the Field Operator's learning experience.

- **PC Client:** This feature allows to use the IFS application with Keyboard and XBOX controller and without wearing the MR headset. PC client supports only Plant Walkthrough for R110.1 release.

- **Tool interaction:** This feature allows the user to pick up the tool from the tools catalog. The tool appears on the hand and can take the tool and keep it near the allocated location on the equipment. The tool appears on the equipment.

SPECIAL CONSIDERATIONS

This section provides information about special considerations in IFS.

Multi-user session

- Multiple users can point towards any equipment at the same time.
- Refer the following table for user restrictions on mode selection.

<table>
<tr><th></th><th colspan="4">Subsequent users</th></tr>
<tr>
<th rowspan="5">User 1</th>
<th></th>
<th>Plant walkthrough
(Team based)</th>
<th>Plant operations
(Team based)</th>
<th>Guided Lessons
(Single user)</th>
<th>Lesson Assessment
(Single user)</th>
</tr>
<tr>
<th>Plant walkthrough
(Team based)</th>
<td>Allowed</td>
<td>Allowed</td>
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<td>Allowed</td>
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<tr>
<th>Plant operations
(Team based)</th>
<td>Allowed</td>
<td>Allowed</td>
<td>Not Allowed</td>
<td>Not Allowed</td>
</tr>
<tr>
<th>Guided Lessons
(Single user)</th>
<td>Allowed</td>
<td>Not Allowed</td>
<td>Not Allowed</td>
<td>Not Allowed</td>
</tr>
<tr>
<th>Lesson Assessment
(Single user)</th>
<td>Allowed</td>
<td>Not Allowed</td>
<td>Not Allowed</td>
<td>Not Allowed</td>
</tr>
</table>

- Up to 6 users are supported.

IC Management Console

- Asset Catalog can be accessed only with premium license.
- Lesson Editor is supported in this release and can be accessed from premium, and advance licenses.

UniSim operations

- The reference (.ref) file must be moved to USD folder from IFS folder.
- The IFS tags must be on the right side, and USD tags on the left side.
- All the write tags should have 'rw' access in a single line.
- The OTS checklist is imported into the IFS Lesson Editor and exported back to OTS after updating both FO and PO actions.

IFS Application

- IFS application is supported on Microsoft Windows Mixed Reality portal and PC client.
- Lesson Editor, Guided Lessons, and Lesson Assessment features are supported.

5 KNOWN ISSUES

This section provides information about the known issues and workarounds.

PAR Number	Description
RMTS-5292	**Error indication:** Upload button is unavailable in Asset Catalog. **Description:** After publishing the assets, the Upload button is unavailable to upload the next version of assets. **Workaround:**Delete the existing version of assets to upload a new version.
RMTS-4707	**Error indication:** IFS Client application closes on Windows Mixed Reality Headset, when kept idle for 15 minutes. **Description:**During a session in IFS Client application if the application is kept idle for 15 minutes, IFS Client application on Windows Mixed Reality Headset gets closed and you can not resume the session. **Workaround:**Increase the Idle time on Mixed Reality Headset.
RMTS-6957	**Error Indication:** The user enters the plant without any PPEs even though it is selected from the VR room. **Description:** In the multi-user session, the user enters the plant without any PPEs even though it is selected from the VR room. **Workaround:** Exit the session. Close and relaunch the IFS Client Application.
RMTS-9913	**Error Indication:** Unable to provide username to install R110. **Description:** Unable to provide username to install R110 after uninstalling R101 with data retention. **Workaround:** Reinstall the R101 with data retention and then migrate from R101 to R110 by selecting data retention as YES.

PAR Number	Description
RMTS-9921	**Error Indication:** Unable to login to portal with valid credentials after installing R110. **Description:** Unable to login to portal with valid credentials after installing the R110 by uninstalling the R101 with data retention. **Workaround:** Reinstall the R101 with data retention and then migrate from R101 to R110 by selecting data retention as YES.
RMTS-10372	**Error Indication:**The lesson status field for Guided Lessons and Lesson Assessment mode is same. Due to this, if the lesson is completed or submitted in any mode, the lesson status is marked as completed for both the modes. **Workaround:** None, no impact on functionality.
RMTS-9143	**Error Indication:** User can see only 1000 assets in the administrator Login. **Description:** User can see only 1000 assets in the administrator login even though more than 1000 reusable assets are uploaded. The message shows as "showing 1000 out of 1000 results". **Workaround:** Login using the domain expert credentials. And all assets are imported even it is showing 1000 in the administrator login.
RMTS-10052	**Error Indication:** When the sound control bar is muted, the sound icon in the VR menu and the menu in the plant is showing unmuted status. **Description:** When the sound control bar is muted, the sound icon in the VR menu and the menu in the plant is showing unmuted status. When the sound is muted both in sound control bar and the main sound icon in the menu should show mute icon. **Workaround:** None.

PAR Number	Description
RMTS-10054	**Error Indication:** When the user tries to navigate immediately after powering on the controller then the user is placed automatically to the by default starting point of the plant. **Description:** This is a specific case when the user turns off the controller and starts again within 5 seconds of time. if the time to start the controller is greater than 5 seconds, this issue does not happen. Teleport services take time to reflect the previously saved position of the avatar, so it takes the user to the default position (0,0,0). **Workaround:** After powering on the controller wait for at least 5 seconds and then try to navigate.
RMTS-10070	**Error Indication:** When user picks up any tool from the catalog, the tool is coming in both the hands. **Description:** When user picks any tool from the catalog, tool is coming in both the hands. If user picks the tool with right hand, the tool should be present in the right hand. **Workaround:** Use only one hand controller for better experience.
RMTS-10377	**Error Indication:** After sign-out from lesson assessment mode without submitting the lesson, the user signs in again and selects Plant walkthrough and enters the plant. After user invokes the menu, the **Search and navigation** and **Dynamic Animation** tiles are disabled. **Workaround:** Logout from the session and login again.
RMTS-10035	**Error Indication:** In PC Client, sliding happens automatically even when the user is not navigating. **Workaround:** Logout from the session, close the application, and login again.

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Documentation feedback

You can find the most up-to-date documents on the Honeywell Process Solutions support website at:

- http://www.honeywellprocess.com/support

If you have comments about Honeywell Process Solutions documentation, send your feedback to:

- hpsdocs@honeywell.com

Use this email address to provide feedback, or to report errors and omissions in the documentation. For immediate help with a technical problem, contact your local Honeywell Process Solutions Customer Contact Center (CCC) or Honeywell Technical Assistance Center (TAC).

How to report a security vulnerability

For the purpose of submission, a security vulnerability is defined as a software defect or weakness that can be exploited to reduce the operational or security capabilities of the software.

Honeywell investigates all reports of security vulnerabilities affecting Honeywell products and services.

To report a potential security vulnerability against any Honeywell product, please follow the instructions at:

https://honeywell.com/pages/vulnerabilityreporting.aspx

Submit the requested information to Honeywell using one of the following methods:

- Send an email to security@honeywell.com.

  or

- Contact your local Honeywell Process Solutions Customer Contact Center (CCC) or Honeywell Technical Assistance Center (TAC) listed in the "Support" section of this document.

Support

For support, contact your local Honeywell Process Solutions Customer Contact Center (CCC). To find your local CCC visit the website, https://www.honeywellprocess.com/en-US/contact-us/customer-support-contacts/Pages/default.aspx.

Training classes

Honeywell holds technical training classes about Immersive Field Simulator. These classes are taught by experts in the field of process control systems. For more information about these classes, contact your Honeywell representative, or see http://www.automationcollege.com.