Tenant Override Billing v3.1.2 for i-Vu® v6.5 or later

TLO

Timed Local Override

⚠ Verify that you have the most current version of this document from **www.hvacpartners.com** or **www.accounts.ivusystems.com** or your local Carrier office.

Important changes are listed in **Document revision history** at the end of this document.

Contents

What is Tenant Override Billing?

Tenant Override Billing allows you to bill tenants for the time that they override your i-Vu® system, changing an area from unoccupied to occupied. An override can be triggered by either:

- TLO microblock allows an occupant to press the pushbutton on a wall sensor during the unoccupied mode.

- Override schedules for zones, areas, and Schedule Groups.

You can schedule Tenant Override Billing to automatically produce monthly invoices for all tenants, or you can produce manual invoices for selected tenants on an as-needed basis. You can email or print the invoices.

Each time Tenant Override Billing produces invoices, it creates the following:

i-Vu® Plus application	• Email invoice (if this feature is set up for your company and the tenant)
	
	• File named report.pdf that contains all the invoices produced at that time and can be used to print the invoices. This file:
	
	    • is overwritten each time invoices are produced
	
	    • automatically opens when you run manual invoices

i-Vu® Pro application	All of the above, plus: • Excel spreadsheet for each tenant's invoice. The file names contain the invoice date and time for easy retrieval. The files are saved in i-Vu_Pro_x.x\webroot\<system_name>\webapp_public\override\reports\<tenant> • The file named report.pdf is saved in i-Vu_Pro_x.x\webroot\<system_name>\webapp_public\override\reports

Installing Tenant Override Billing

PREREQUISITES

- The i-Vu® Plus or Pro v6.5 or later application with latest cumulative patch

- If you are upgrading from a version of i-Vu® System Tenant Override Billing previous to 3.0, you must select **Remove Add-on**. No data is carried forward. See *Upgrading from a previous billing version (page 10)*.

- Set up one of the following for billable zones:

    ○ Override schedule with equipment assigned.

    ○ Control programs that contain the required logic. See *Required control program logic for TLO* (page 2).

- You must assign the user to a Privilege Set that includes the **Remote Data Access – SOAP** and **Access System Tree** privileges. The **Installer** and **Administrator** Privilege Sets include those two privileges. To restrict a user to just using TOB, create a custom Privilege Set that includes only those two privileges.

    NOTE:

- Browser support:

    ○ Google™ Chrome™ v23.0 or later

    ○ Internet Explorer v10 or later. You must add i-Vu® Server as a trusted site. In Internet Explorer, go to **Tools > Internet Options,** then click **Security > Trusted sites > Sites**.

    ○ Mozilla® Firefox® v21.0 or later

Required control program logic

You can use **Snap** to make a custom control program to bill a tenant for overrides.

1 Use the Digital Trend Log microblock for a billable zone.

NOTE The **Reference Name** must be **timeoverride**

2 Enable the following in the microblock's properties:

○ **Enable Trend Log**

○ **Sample on COV**

○ **Enable Trend Historian**
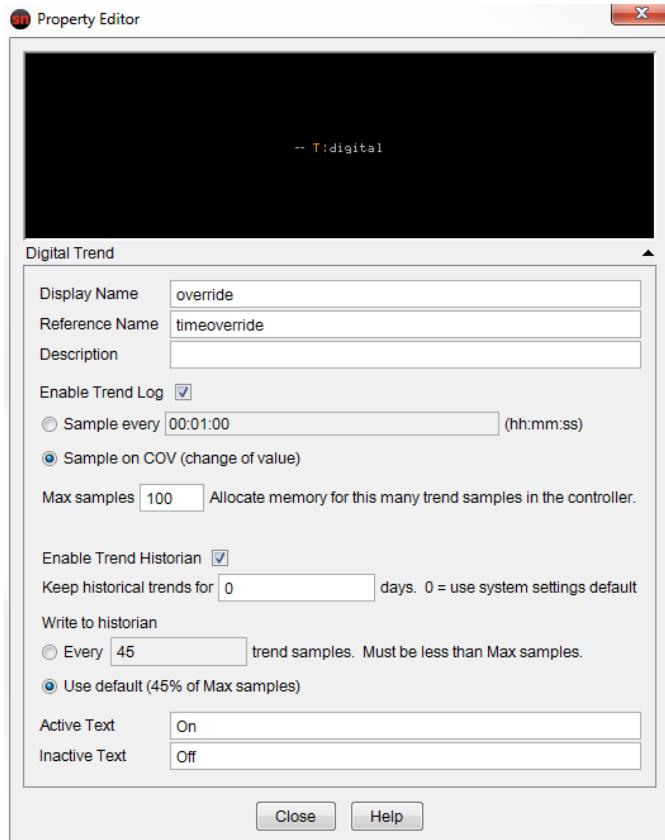
The logic must filter out any override when the zone is occupied.

To install and run Tenant Override Billing

1 Download the **Tenant Override Billing** file from http://www.hvacpartners.com/, and save it to your desktop.

> **NOTE** You can delete this file from your desktop after you complete this procedure.

2 In a web browser, log in to your i-Vu® system.

3 Do one of the following:

i-Vu® Plus interface	Click ▾☰ and select **System Options** > **Add-ons** tab.
i-Vu® Pro interface	Click ▾☰ and select **System Options** > **System Settings** > **Add-ons** tab.

4 Browse to the .addon file on your desktop.

5 Click **Install**. After a few seconds, the add-on appears in the **Installed** table and shows the status **Running**.

6 In a web browser, type the address of your i-Vu® system followed by `/override`. For example, `http://system/override`.

> **NOTES**
>
> ○ /overrideis case sensitive.
>
> ○ If the i-Vu® server uses TLS for secure communication, the add-on can also use TLS. Begin the above address with `https://`.
>
> **TIP** If you select the add-on on the **Add-ons** page, you can launch the add-on from the **main** link.

7 If you logged out of i-Vu®, you must log in to the add-on with your i-Vu® user **Name** and **Password**.

> **NOTE** If the add-on detects no activity for 30 minutes, it will log you out.

Setting up and using Tenant Override Billing

To set up your company's information

1   On the **Configuration screen**, enter your company's information. See table below.

   NOTE   Do not use the following characters: & % + < >

2   Click **Accept**.

Field	Notes	See Sample Invoice (page 11)
Logo	Optional—To have a logo appear at the top of the invoices, browse to the logo file. Supported formats: gif, jpeg, png If you do not select a logo, the name of your system will appear on the invoices.	①
From	Your company's name as you want it to appear on the invoice.	②
Address	Your company's address as you want it to appear on the invoice.	③
Currency symbol	The symbol that you want to appear before the invoiced amount.	④
Date format	The format (dd Mon, yyyy -or- Mon dd, yyyy) that the user interface and invoice will use for dates.	⑤
Billing contact	Contact information that you want to appear on the invoice in the sentence, **Contact _____ for questions about this bill**.	⑥
Next invoice no.	Tenant Override Billing numbers the invoices sequentially, starting with this number. Type numbers only; no spaces or special characters.	⑦
Update invoice no.	If you have run manual invoices in the current session of Tenant Override Billing, click the button to have the **Next invoice no.** field show the next available invoice number.	
Next scheduled run	To set up a monthly billing cycle, click **Invoice Scheduler** to add the dates to send out the monthly bills, select the beginning date of the billing period, and set the due date.	

Field	Notes	See Sample Invoice (page 11)
Collect schedules every	If the expired schedules in your system are set to be auto-deleted each day, you must archive the data each day before it gets deleted. To archive the data, enter a time fifteen minutes before the deletion time. 💡 **TIP** To determine when the expired schedules are automatically deleted in your system, check the System Settings page (click the info button (ℹ️) to see an example of where this is set).	

(**Collect schedules every** applies to the **i-Vu® Pro** application only)

Notes for the i-Vu® Pro application only:

- To add a note that will appear on every invoice, you must edit a file named **invoicefields.properties**:

    a) Create a file named **invoicefields.properties** file in **i-Vu_Pro_x.x\webroot\<system_name>\webapp_data\override\private**

    b) Type "notes=" followed by the message (see below) and then save the file.
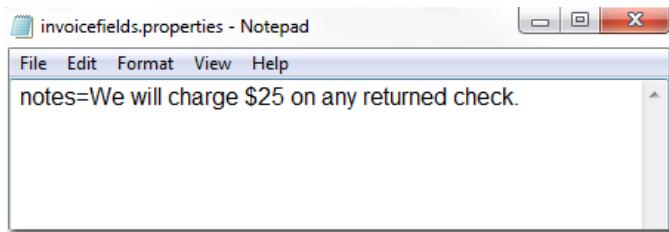
    The example above results in ⑧ on Sample Invoice *(see Appendix)* (page 11).

- To add a prefix to the invoice number, add it to the **invoicefields.properties** file using the instructions above.
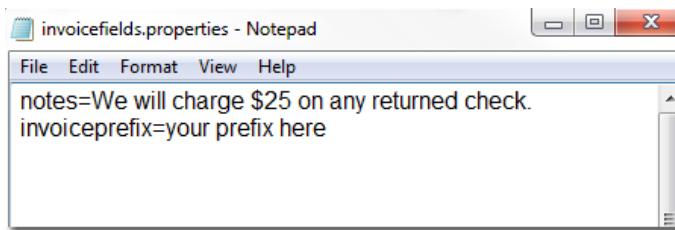
The example above results in ⑦ on Sample Invoice *(see Appendix)* (page 11).

To set up email invoices

If you want to email invoices:

1   On the **Configuration Screen**, click **Email settings**.

2   Enter the appropriate information. See table below.

  NOTE Do not use the following characters: & % + < >

3   Click **Accept**.

NOTE You must also enter an email address for each tenant whose invoice you want to email. See "To set up tenant information" below.

Field	Notes
SMTP (Email) Server	The SMTP mailserver's address. This can be an IP address or a system name, such as mail.mycompany.com.
Enable SSL for Email	Select this checkbox if your mailserver uses SSL to secure communications. Your Network Administrator can give you this information.
Port	Enter the mailserver's port number.
User name and **Password** (if required by your server)	The user name and password required to access the local network's SMTP email server.
Your email	Your company representative's email address.
CC reports to	Enter an email address of anyone (such as your accountant) that you want to receive the .pdf file containing all invoices.
Subject	Subject line of the email.
Message	Email message.

To set up tenant information

NOTE In the i-Vu® Pro application only - If you want a note to appear on every invoice, you must add it in the invoicefields.properties file. See *To set up your company's information* (page 5).

1   Log in to the i-Vu® application and Tenant Override Billing.

2   In the upper left corner of Tenant Override Billing, click **Add**.

3   Type the tenant's name and address in the first 5 fields.

  NOTE Each invoice is saved as a .pdf file and an Excel spreadsheet using the tenant name as part of the file name. If you type a \ / : * ? " | in the Tenant field, the character will be replaced by an underscore (_) in the file name.

4 Enter information in the following fields.
NOTE Do not use the following characters: & % + < >

Field	Notes	**See Sample Invoice** (page 11)
Billing Rate	The amount to be billed per hour or minute.	⑨
Allowance	The amount you want to discount the tenant's bill.	⑩
Service Charge	Optional—A flat fee that you can bill the tenant for the override service. Charges for actual override time are added to this fee. **NOTE** This charge is applied even if there are no overrides during the billing period.	⑪
Minimum billed time per override	Optional—The minimum time you will bill the tenant each time they override the system.	⑫
Minimum increment time	Optional—Time increment for which the tenant is billed. For example, if the increment is 10 minutes, and the tenant overrides the system for 45 minutes, they will be billed for 50 minutes.	⑬
Email address	Select the **Email bill to tenant** field to email the invoice, then type the tenant's **Email Address**. See *To set up email invoices* (page 7).	

5 Select the **Zones** tab.

6 In the tree, select the equipment that affects that tenant's area.

NOTE If the tenant has multiple areas, select multiple items in the tree or click **Select all**.

7 Click .

NOTE Tenant Override Billing retrieves the latest i-Vu® tree each time you create or edit a tenant's invoice. If you add a zone to your i-Vu® system while creating or editing a tenant's invoice, exit the tenant's information window, and repeat the steps to add or edit an invoice, to see the new zone. The new zone's control program must have the *required control program logic* (page 2).

8 You can select one or both of these options:

- Check **TLO** to include overrides initiated at the wall sensor.

- Check **Schedule** to include Override Schedules.

9 To set up specific times in a week for which you do not want to bill the tenant, select the **Exemptions** tab. Otherwise, click **Accept**.

10 Type a **Name** for the exemption.

11 Select the **Day(s) of the week** and define the **Times** for which you do not want to bill the tenant.

12 Click **Save to list**.

13 Repeat steps 10 through 12 to define multiple exemption periods.

14 Click **Accept**.

To automatically produce monthly invoices for all tenants

1 On the **Configuration screen**, click the **Invoice scheduler** button located to the right of **Next scheduled run**.
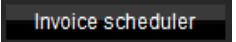
2 In the **Add billing date** field, click in the **Add billing date** field to access the calendar, then select the first billing date that you will want to produce invoices.

3 Click **Add**.

4 Repeat steps 2 and 3 for each consecutive month that you want to produce invoices.

5 In the **Billing period** field, select the period of time that you want the invoice to cover.

6 In the **Scheduled due date** field, define when the payment is due.

7 Click **Accept**.

The **Next scheduled run** field shows the next date invoices will be produced. This occurs at 12:00 a.m. on that date. i-Vu® Server must be running, Tenant Override Billing must be installed and enabled, but does not have to be running.

NOTE If i-Vu® Server stops running and scheduled invoices cannot be produced, they will be produced the next time i-Vu® Server is started.

To run manual invoices

1 Under **Billing Period** on the **Configuration Screen**, select **Previous calendar month** or define a specific **Start** and **End** date that you want to invoice the tenant for.

2 Click in the **Due date** field to access the calendar, and then select the date.

3 In the **Tenant List**, select individual tenants whose invoices you want to produce or choose **Select All**.

4 Click **Run selected invoices**.

Upgrading from a previous billing version

1 Download the appropriate **Tenant Override Billing** file from from the download page, and save it to your desktop.

NOTE You can delete this file from your desktop after you complete this procedure.

2 Do one of the following:

i-Vu® Plus interface	Click and select **System Options** > **Add-ons** tab.
i-Vu® Pro interface	Click and select **System Options** > **System Settings** > **Add-ons** tab.

3 In the **Installed** table, select **Tenant Override Billing**, and then click the appropriate button based on the version you are upgrading from:

- ○ If you are upgrading from a 3.0 or later version of Tenant Override Billing, click the **Remove Add-on and Keep Data** button.

- ○ If you are upgrading from a version of Tenant Override Billing previous to 3.0, click the **Remove Add-on and Data** button.

4 Under **Install New Add-on or License**, click **Browse** and open the **override.addon** file on your desktop.

5 Click **Install**. After a few seconds, the add-on appears in the **Installed** table and shows the status **Running**.

6 Clear your browser's cache.

7 Open any browser supported by the i-Vu® application and go to the URL for your system, for example, `http://system/override`.

NOTE If i-Vu® Server uses SSL for secure communication, use `https` instead of `http`.

Appendix

Appendix: Sample invoice

Invoice for override energy use   Page 1 of

(1) **ABCompany**

INVOICE	**OVERRIDE ENERGY USE**
From:	(2) ABC Company, Inc
	(3) 123 Main St.
	Suite #100
	Exampleville, CA 95661
To:	**Widget Corp.**
	321 Any St.
	Exampleville, CA
Invoice No.:	(7) Your prefix here 000042
Invoice Date:	(5) Jun 07, 2019
Period:	Apr 01, 2019 - Apr 30, 2019
Amount Due:	(4) $545.00
Due Date:	Aug 01, 2019
Questions:	(6) Contact Customer Service for questions about this bill.
Notes:	(8) We charge $25 on any returned check.

Item	Date	Begin	Date	End	Minutes	Amount
Widget Corporate Center / Summary Plan C 321 / 2nd Floor / Master VAV 2-11						
1	Apr 14, 2019	12:40:00 PM	Apr 14, 2019	01:40:00 PM	120	
2	Apr 24, 2019	08:40:00 AM	Apr 24, 2019	09:05:00 AM	120	
(14) 3	Apr 27, 2019	12:30:00 PM	Apr 27, 2019	01:30:00 PM	120	
	Apr 27, 2019	02:05:00 PM	Apr 27, 2019	03:05:00 PM	*	
4	Apr 28, 2019	11:40:00 AM	Apr 28, 2019	12:40:00 PM	120	
Total					480	240.00
Widget Corporate Center / Summary Plan C 321 / 2nd Floor / Master VAV 2-12						
1	Apr 06, 2019	05:40:00 PM	Apr 06, 2019	06:40:00 PM	120	
2	Apr 07, 2019	10:30:00 AM	Apr 07, 2019	11:25:00 AM	120	
3	Apr 28, 2019	10:15:00 AM	Apr 28, 2019	11:15:00 AM	120	
4	Apr 28, 2019	04:30:00 PM	Apr 28, 2019	05:30:00 PM	240	
	Apr 28, 2019	06:00:00 PM	Apr 28, 2019	07:00:00 PM	*	
	Apr 28, 2019	07:30:00 PM	Apr 28, 2019	09:05:00 PM	*	
Total					600	300.00

Total Due		**$540.00**
(10) **Less allowance**		-$5.00
(11) **Service charge**		$5.00
GRAND TOTAL		$540.00
(9) Rate :	$30 per hour.	
(13) Minimum increment time:	60 min.	
(12) Minimum billing time:	120 min.	

Widget Corp.

(14) See *Overlapping billing periods* (page 12) for an explanation of how adjacent override periods are handled.

Appendix: Overlapping billing periods

Two billing periods overlap when the start of an override period is within the minimum billable time of the previous override period. Billing time for a combined billing period is calculated by adding the actual times of each individual override period in the group, then applying the appropriate minimum charge. When override periods are grouped on an invoice, they appear under the same **Item**, with the billable minutes appearing on the first line of the group.

NOTE Tenants are not charged separately for override periods that have overlapping billing periods.

See ⑭ on the *Sample invoice* (page 11).

Examples

Given a minimum billed time per override of 120 minutes, and a minimum increment time of 60 minutes, the periods 09:30-10:30 and 11:05-12:15 overlap because 11:05 is within 120 minutes of 09:30.

It is possible for more than two billing periods to overlap. In our example, the combined billable time of 9:30-12:15 extends to 12:30 because of the 60 minute minimum increment. If the next override period is 12:30-13:00, it overlaps with the previous two periods. The combined period is charged by adding the lengths of the three periods (60 + 70 + 30 = 160), then applying the 60 minute minimum increment for a total of 180 minutes.

Period	Result
9:30 - 10:30	120 minute minimum billing
11:05 - 12:15	Overlap with the previous override period • 9:30 - 10:30 = 60 minutes • 11:05 - 12:15 = 70 minutes • Total 130 minutes Rounded up to the nearest hour = 180 minutes
12:30 - 13:00	Overlap with the previous override period • 9:30 - 10:30 = 60 minutes • 11:05 - 12:15 = 70 minutes • 12:30 - 13:00 = 30 minutes • Total 160 minutes Rounded up to the nearest hour = 180 minutes

Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
3/16/20	Cover	New Carrier® Logo	A-D
8/19/19	Installing Tenant Override Billing	Clarifies privileges required	X-AE-LO
7/19/19	Appendix: Overlapping billing periods	Clarifies how the add-on calculates overlapping billing	TS-RD-LO

* For internal use only