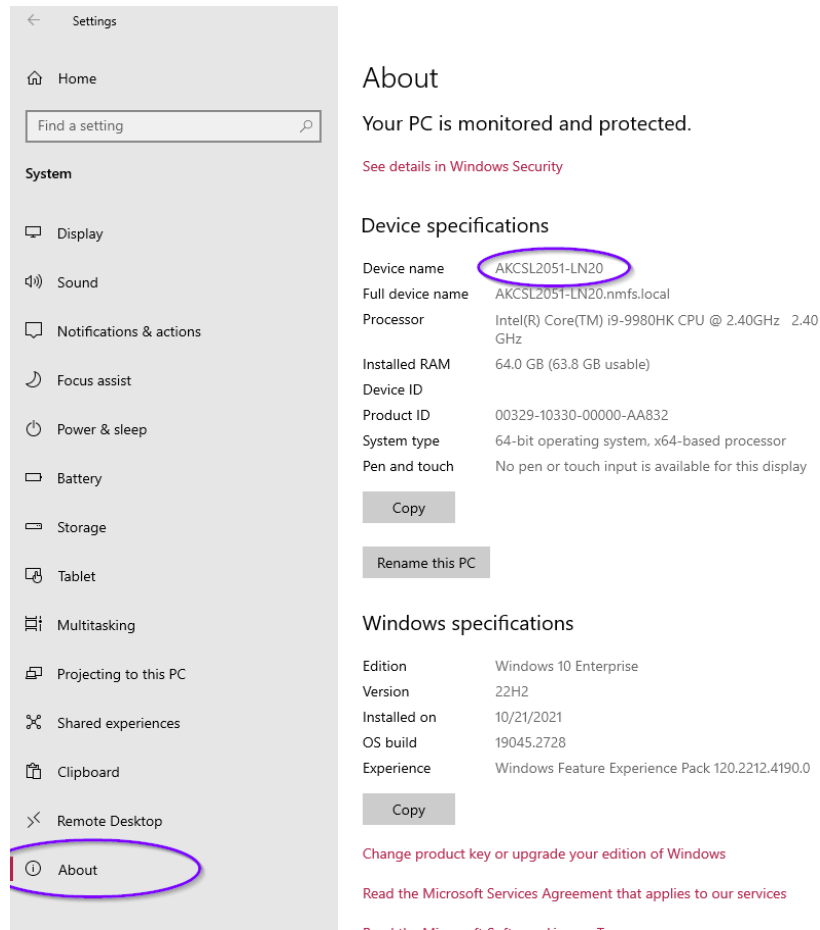


How to Add a Workstation to CLAMS

1. Obtain the workstation name from the computer's System control panel.



2. Using SQL Developer, create an entry for this new machine in the CLAMS WORKSTATIONS table. The workstation ID must be unique and in the range of 0-999. The hostname column should match the computer name of the computer you are adding, the status should be "closed", provide an accurate description, and set active to 1. Make sure you commit your changes.

clams2abl WORKSTATIONS

ColumnsDataModelConstraintsGrantsStatisticsTriggersFlashbackDependenciesDetailsPartitionsIndexesSC

3. Next, select the WORKSTATION_CONFIGURATION table. Workstations can have different roles depending on how you use them during processing and this table is where your new workstation's roles are defined. Each workstation has to have at least two entries in this table:

MainActions	<p>Set this to a comma delimited list of top level actions available to your new workstation. Setting these enables the various buttons on the main application form. The actions are:</p> <ul style="list-style-type: none"> • Trawl Event - Include this action to enable running events (e.g. trawl event) from this workstation. • Enter Catch - Include this to use this workstation to process the catch. • Administration - Include Administration to enable the very basic administration dialogs. • Utilities - This enables the utilities button.
Modules	<p>Set this to a comma delimited list of the catch processing modules that will be available to the workstation. This is used to limit sampling choices at specific workstations based on the role that station plays. Valid values are:</p> <ul style="list-style-type: none"> • Haul - The haul module captures data about the overall trawl like success/failure and total catch weight. • Catch - The catch module captures the catch composition and basket weights of the sorted catch. • Length - The length module collects length/sex data • Specimen - The specimen module collects groups of measurements (protocols) from individual fish that have been selected to be measured in the Catch module.

The next entries define where CLAMS will find some support files and write logs. Since 1/2022 these can optionally be added to the clams.ini file. When these are in the .ini file, they do not need to be entered into this table.

IconDir	The full path to the CLAMS “icons” directory. This is where CLAMS will try to read application icon files from.
ImageDir	The full path to the CLAMS “images” directory. As the name implies, this is where CLAMS expects images to be.
LoggingDir	The full path to the directory where CLAMS logs error messages and SQL transactions.
SoundsDir	The full path to the CLAMS “sounds” directory.

The easiest method when adding a workstation is to copy these values from an existing station, paste them into new rows, and edit as needed.

105	70	Modules	Haul, Catch, Length, Specimen	
106	70	SoundsDir	C:/CLAMS/sounds	
+107	20	IconDir	C:/CLAMS/icons	
+108	20	ImageDir	C:/CLAMS/images	
+109	20	LoggingDir	C:/CLAMS/logs	
+110	20	MainActions	Trawl Event, Enter Catch, Administration, Utilities	
+111	20	Modules	Haul, Catch, Length, Specimen	
+112	20	SoundsDir	C:/CLAMS/sounds	

Messages - Log ☒

- The next series of steps will define how measurement data is obtained by this new workstation. CLAMS workstations (usually) have devices such as scales, fish boards, bar code readers, etc. attached to them that provide data to CLAMS. We need to tell CLAMS how these are attached and what data they provide.

If you are adding a new workstation that has devices attached, the first step is to enter those devices into the DEVICES table. In theory, you should have a device entry for every physical device connected to CLAMS. This allows you to track all measurements made by a device and to, if necessary, correct or ignore measurements by devices that were not correctly calibrated during use. In practice you can re-use devices between workstations *if they share the same configuration*. I don't recommend this, but you may see this in the database.

If you are adding a workstation that will not have devices attached but that you want to use as if it had devices attached (i.e. your desktop PC at AFSC) or you are adding a workstation that will only have software devices attached such as an event logging PC you don't have to enter anything in the DEVICES table.

- Next, if you have added devices to the DEVICES table, you must open the DEVICE_CONFIGURATION table. This table provides the parameters CLAMS needs to determine how to connect to the device, how to parse the data received from the device, and what sound to play when data is received from the device. There are 7 common device_parameters that can be configured.

Module	This is the one and only required parameter for Software devices. Software devices are dialogs that the user interacts with to provide a measurement. For example a “Yes/No” dialog that asks if an Ovary was taken from a specimen. The value provided must match the name of the Python class that implements the measurement dialog.
SerialPort	Required for serial based devices. This is the serial port the device is connected to. The value can be a string such as “COM3” (preferred) or a number that is 1 greater than the COM port number. For example “4” would specify “COM3”.
BaudRate	Required for serial based devices. This is the baud rate of the attached serial device.
ParseType	Required for serial based devices. This specifies the type of parsing used on the string received from the serial device. Valid values are None, Delimited, RegEx
ParseExpression	Required for serial based devices with a ParseType of Delimited or RegEx. If ParseType is Delimited, this is a string that specifies the delimiter such as “,”. If the ParseType is RegEx, it is the regular expression string. Google “Regular Expressions” if you don’t know what that is.
ParseIndex	Required for serial based devices with a ParseType of Delimited or RegEx. ParseIndex is a number that defines the field to return after parsing. The index is 0 based. For example, if you have a comma delimited list of 4 values and you want the 3rd value in the list, you would specify “2” as the parse index.
SoundFile	Sound file is required for serial devices and it is the name of a file in the CLAMS sounds directory that should be played when a measurement from the device is received.

- The last step in adding a workstation is linking the devices and measurements to your workstation in the MEASUREMENT_SETUP table. **Workstations can only take measurements that they are configured to take. If a protocol requires a measurement that is not configured for a workstation the protocol will not work on that workstation.**

This step typically requires a bit of thought as to what exactly the workstation will be used for. If a workstation is only used as a Haul and Catch station, the configuration is very simple as the catch module only interfaces with a basket scale. The same for Length module as it only interfaces with a length board, though it also includes the sex measurement because the user specifies the sex before measuring. Workstations that run the Specimen module will have quite a few entries. Not only because they generally have a few more physical devices connected, but because there tends to be a lot of software based devices. Event stations sit somewhere in the middle as they generally only have the SCS devices “attached” to them.

In our example, we’re adding a station that includes all Actions and all Modules and we want it to be able to run all protocols so **every** measurement has to be included. The best approach is to copy and

paste values from an existing workstation that is configured in the same way. The image below shows a screenshot of the partial list of measurements set up for our example workstation.

Columns		Data	Model	Constraints	Grants	Statistics	Triggers	Flashback	Dependencies	Details	Partitions	Indexes
WORKSTATION...	MEASUREMENT_TYPE	DEVICE_ID	DEVICE_INTERFACE	GUI_MODULE								
+443	20	Genetics taken	36	Software	Specimen							
+444	20	IGF taken	34	Software	Specimen							
+445	20	Isotope taken	35	Software	Specimen							
+446	20	Otolith taken	37	Software	Specimen							
+447	20	genetics vial	40	Software	Specimen							
+448	20	maturity ABL	38	Software	Specimen							
+449	20	scales taken	39	Software	Specimen							
+450	20	IGF number	42	Software	Specimen							
+451	20	stomachML taken	46	Software	Specimen							
+452	20	wholefish taken	44	Software	Specimen							
+453	20	fishhead taken	45	Software	Specimen							
+454	20	bia taken	43	Software	Specimen							
+455	20	samples ABL JuvSal	47	Software	Specimen							
+456	20	samples ABL Sal	48	Software	Specimen							
+457	20	fish head	22	Serial	Specimen							
+458	20	whole fish	22	Serial	Specimen							
+459	20	organism weight	20	Serial	Specimen							
+460	20	liver weight	20	Serial	Specimen							
+461	20	ovary taken	7	Software	Specimen							
+462	20	sex	1	Software	Specimen							
+463	20	maturity	3	Software	Specimen							
+464	20	length	25	Serial	Length							
+465	20	length	25	Serial	Specimen							
+466	20	gonad weight	20	Serial	Specimen							
+467	20	sex	1	Software	Length							
+468	20	barcode	22	Serial	Specimen							
+469	20	fork length	25	Serial	Specimen							
+470	20	standard length	25	Serial	Specimen							
+471	20	total length	25	Serial	Specimen							
+472	20	stomach taken	5	Software	Specimen							

Add your changes and don't forget to commit.