

Introduction

The Colorado System 5 timing system is used in aquatic facilities and uses touch pads at either end of the pool, plus one or more optional manual buttons, to stop the timer for each lane. GMS interfaces directly with Colorado to capture the results. This is a one-way only interface, with all data coming from the Colorado timer into GMS.

This document covers setting up your aquatic events in GMS and interfacing with the Colorado timer; it does not describe the setup or operation of the Colorado system itself.



Illustration 1, Colorado System 5 timer

Getting Started

First you need to define the events in GMS that are using this timing system. Right-click on each aquatic event and select “Define this event”; on the “Basics” tab check the box “Uses external/timing interfaces”. Click the “External Interfaces” tab and select “Colorado System 5” then type in an event number (optional) and a scoreboard name (optional). The scoreboard name, if used, is usually a shortened version of the event’s name and will be used if GMS drives any scoreboards.

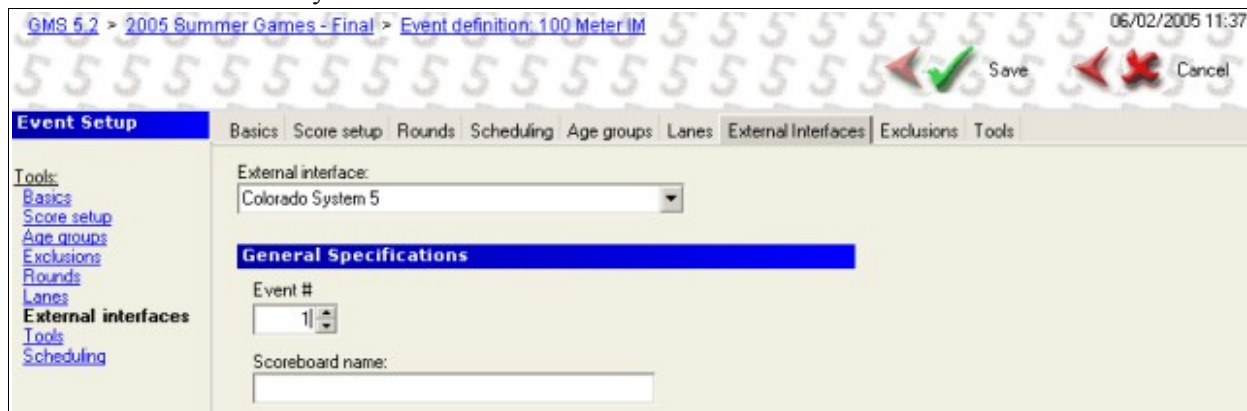


Illustration 2, Defining the event in GMS

Save the event definition and repeat the process for each event that will use this interface.

Divisioning & Lane Assignment

Before working with the Colorado timer, you must have your entrants divisioned and lanes assigned. Divisions in GMS correspond to the race numbers in the Colorado timer.

Lane can be assigned either manually using the Lane Assignment Wizard. In each division, every entrant must have his/her own lane (for team/relay events, each team/relay is considered a single competitor).

The standard order here is:

1. Division your entrants, manually, using the Auto-Division Wizard, or some combination of both
2. Assign lanes using the Lane Assignment Wizard
3. Manually move any “special” entrants – e.g. blind athletes or those with seizures to outside lanes

Using scheduling in the games is not required, but it is a substantial help. With scheduling enabled, GMS will track the status and start time of each division, and printed schedule reports make it simpler to coordinate staggers, starters, timing system operators and awards. See the “Scheduling” document for more details.

Note that all communication with the Colorado timer is based on lane numbers – the Colorado timer does not know the names or delegations of any entrants, only the lanes in which they are competing. See the document

“Lane Assignment” for more details on how to assign lanes manually and automatically.

Note: Having GMS assign lanes “Automatically when printing heat sheets” *will not work*. Lanes need to be assigned to each entrant in each event either manually or using the Lane Assignment Wizard, or the interface *will not work*.

Interface Basics

Using this system requires two operators: one to operate the Colorado timer, and one to run GMS. Each operator should know their respective system well enough to troubleshoot any potential problems. Generally, these two operators will work side-by-side and in constant communication to coordinate operations. The Colorado operator will watch the event, enabling/disable lanes, and ensure that the correct scores are captured. The GMS operator will take the data from the Colorado timer, make manual corrections and place updates (DNS, DQ, etc.), and print results for official sign-off and awards.

Data communications with the timing system is done by direct connection via serial port. All communications are one way only: Colorado to GMS. During the competition, results are captured and stored in the Colorado timer. The GMS operator can bring those results in from the timer by meet and event number. This can be done as each race is completed or at specified points during the day, as the Colorado timer will retain the each event's data as it's completed.

Setup

Unlike some other timing systems in GMS, this interface is opened directly from within the event and can be used only for one event at a time. Open the event, and on the menu bar click “Enter Scores” then “Colorado System 5” and the round you are working with. Go to the “Setup” tab to configure the interface.

Illustration 3, Timing system setup

The communications port is the physical serial port that the Colorado timer is plugged into (usually COM1:). Communication speed is either 2400 or 9600 baud – check with the Colorado operator for the correct speed. If this is set wrong, it will appear that no data is coming across from the Colorado timer.

Time precision defines how GMS handles the times coming in from the timer.

“Get scores from timer” defines how GMS will request information for each race – either by event number and heat number, or by race number alone. Changing this will change the mechanism for querying the timer:



Event # Heat #
Previous race Next race →

Illustration 4, Communicating with timer by event/heat

Use the [Previous meet] and [Next meet] buttons to find the meet in use for this event; the Colorado operator should know which one is correct.

Getting Results

Once you are set up and connected to the Colorado timer, you can begin to get results for completed races. Click on the “Results” tab to view the divisions that you have created in GMS.

Running Final competition round		Lanes in pool: (unknown)		Current status: "Finished - unofficial"	
Division:	147	Race #:	8	Get scores from timer	Calculate places
← Previous race		Next race →		Change status	Edit Division Properties
Setup	Lane 1	Casebolt, Anna	00:12.00	1st place	
Results	Lane 2	Jahnke, Jill	00:13.00	2nd place	
Diagnostics	Lane 3	Mayhugh, Mary	00:14.00	3rd place	
	Lane 4	BRUCH, Anna Girl	00:15.00	4th place	
	Lane 5	(lane not in use)			

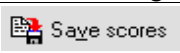

Illustration 5, Results acquisition

At the upper-left corner is a drop-down with the divisions for this round; use it to select the first division to be run. Then set the “Race #” or “Event #” and “Heat #” to the corresponding values in the Colorado timer. Now, as you move between divisions using the [Previous race] and [Next race] buttons, GMS will increment/decrement the “Race #” or “Heat #” appropriately so that the two remain synchronized.

To get the scores for the current race, click [Get scores from timer]. GMS will send a request to the timer for this race, and retrieve the scores and lanes in use.

All communication between GMS and the Colorado timer is based on lane numbers – the Colorado timer does not know the names or delegations of any entrants, only the lanes in which they are competing. If two entrants switch lanes, or someone competes in the incorrect lane, the score may not come across correctly or be attributed to the wrong entrant. If a score comes from the Colorado timer for a lane that GMS does not think is in use, GMS will ignore the score and will show an error message. If an athlete is in a lane in GMS but the Colorado timer doesn't have a score for that lane, GMS will not get a score; an error message will appear.

When any scores or places have been changed, either manually or by retrieving them from the Colorado timer,

two new buttons will appear:  Save scores  Cancel scores. (If changes have been made and you move to another race without saving changes, GMS will prompt you to save them.)

Make any manual changes if necessary, and assign places (if appropriate) either by hand or by clicking on [Calculate places], and then save your changes.

Hint: buttons which have a character underscored, e.g. [Calculate places], can be “hit” by typing [Alt][C] – holding down the [Alt] key then pressing [C]. This allows you to do much of the navigation within this interface solely using the keyboard and not the mouse if that's faster for you.

Entering times

When manually entering times, GMS allows you to use the decimal (“.”) character in place of the colon (“:”) character. For example, you can enter the time one minute, 14.27 seconds as “1.14.27” and GMS will interpret and display that time as “01:14.27”.

Honest Effort

If honest effort is enabled for this games and event, entrants whose scores exceed the defined honest effort

threshold will have their lane numbers appear in red. Hold your mouse over the lane number to see the previous score, current score, and percentage difference; disqualification, where appropriate, must be done manually by changing the entrant's place.

Printing results

Click on [Print results] to print results labels or other results reports for the current division. (GMS will require that you save any outstanding changes before running these reports.)

Scheduling

When scheduling is enabled for the games and this event, you'll see three things: the [Change status] button, the [Edit Division Properties] button, and a label in the upper-right corner similar to "Current status: Not started".

Click on [Division properties] to bring up this screen. Here you can set the division's status, location, start date and time, comments, and see the entrants in the division. The division status is used in the results printer (among other places) to determine which divisions are complete.

Changing a division's status to "Finished – unofficial" brings up one additional option - "Allow automatic timed transition to 'Official'". In each event's definition, if automatic official transition is enabled, GMS will wait a specified period of time (usually fifteen minutes) and then automatically make the event "Finished – official". This allows you to print unofficial results immediately, but when the reports are re-run later, they will be "Finished – Official" unless you prevent it, saving you from manually changing each division's status to "Finished – Official".

A division status of "Finished – in protest" will not be automatically changed.

To quickly change only the status of a division, click on the [Change status] button, and a drop-down with the four major statuses will come up.

Note that clicking [Calculate places] will automatically mark the current division as "Finished – unofficial" with no further intervention necessary.

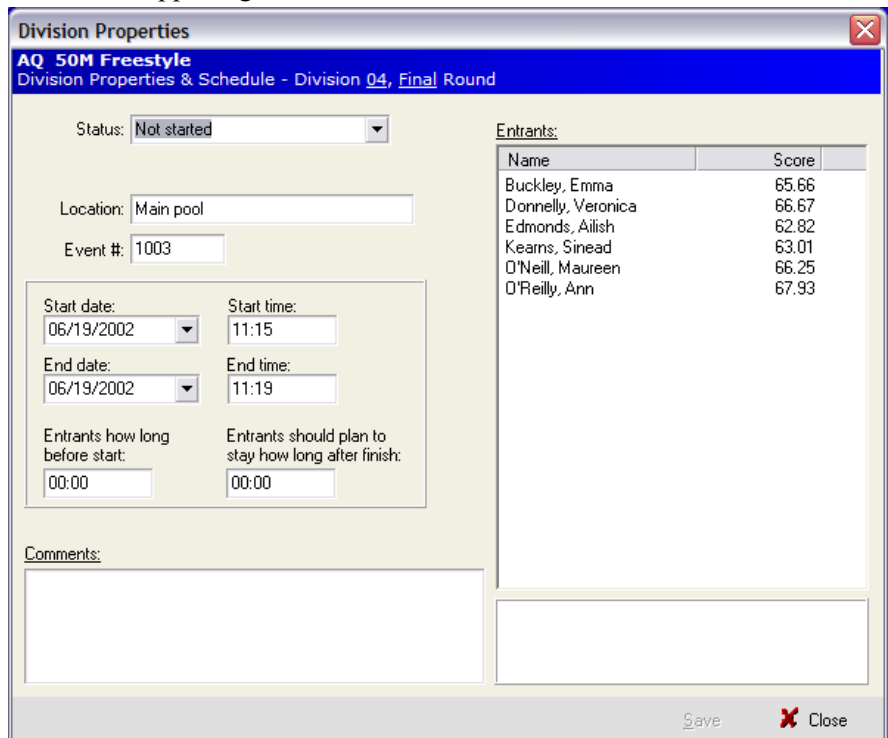


Illustration 6, Division properties

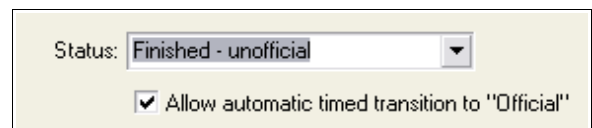


Illustration 7, Automatic Official

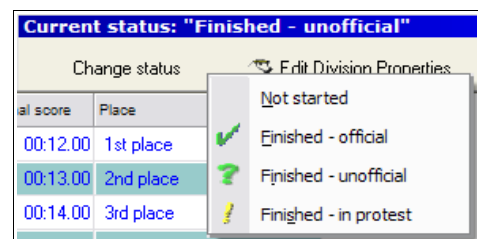


Illustration 8, Change status