

GBG Batch Planner™ - Conduct Large Screening Campaigns with Time-Course Kinetic Studies Supporting Multiple Users



Kinetic applications require taking repeated measurements or using live-cell imaging over a duration of time. It is helpful for many aspects of drug discovery and development. Understanding response kinetics is critical in measuring cellular characteristics during a phenotypic study. The challenge with time-course studies is to maximize throughput and access to the automated workcell while performing High Content Screening. Traditional drug discovery screening methods use endpoint assays and have a limitation of a single snapshot in time following compound addition. Kinetic imaging is increasingly becoming a method of choice for insights into candidate drugs but faces the challenge of managing multiple users and access to the same instruments during the cycle of time lapse data acquisition.

GBG Batch Planner is a calendar-based plug-in for Green Button Go™ Automation Scheduling Software. It allows multiple users to plan for their experiments by building a calendar for availability of the workcell to allow interleaving of batches for different time-course experiments.

The screenshot shows the GBG Batch Planner software interface. It features a calendar view on the left and a list of batches on the right. The calendar view shows a grid of days from Monday 04/01 to Sunday 04/07, with time slots from 01:00 to 12:00. Batches are scheduled as colored blocks within this grid. The list of batches on the right includes columns for NAME, STARTTIME, ENDTIME, and a status column. The interface also includes navigation buttons for 'previous' and 'next', and a list of control buttons at the bottom: 'new batch', 'edit cycle', 'delete cycle', 'shift batch', and 'delete batch'.

NAME	STARTTIME	ENDTIME	D
Batch 1 - Cycle 7	4/3/2019 4:58:24 AM	4/3/2019 5:00:30 AM	00
Batch 1 - Cycle 8	4/3/2019 6:35:18 AM	4/3/2019 7:00:30 AM	00
Batch 1 - Cycle 9	4/3/2019 8:35:18 AM	4/3/2019 9:00:30 AM	00
Batch 1 - Cycle 10	4/3/2019 10:35:18 AM	4/3/2019 11:00:30 AM	00
Batch 1 - Cycle 11	4/3/2019 12:35:18 PM	4/3/2019 1:00:30 PM	00
Batch 1 - Cycle 12	4/3/2019 2:35:18 PM	4/3/2019 3:00:30 PM	00
Batch 2 - Cycle 1	4/3/2019 9:00:30 AM	4/3/2019 9:25:42 AM	00
Batch 2 - Cycle 2	4/3/2019 11:00:30 AM	4/3/2019 11:25:42 AM	00
Batch 2 - Cycle 3	4/3/2019 1:00:30 PM	4/3/2019 1:25:42 PM	00
Batch 2 - Cycle 4	4/3/2019 3:00:30 PM	4/3/2019 3:25:42 PM	00
Batch 2 - Cycle 5	4/3/2019 5:00:30 PM	4/3/2019 5:25:42 PM	00
Batch 2 - Cycle 6	4/3/2019 7:00:30 PM	4/3/2019 7:25:42 PM	00
Batch 2 - Cycle 7	4/3/2019 9:00:30 PM	4/3/2019 9:25:42 PM	00
Batch 2 - Cycle 8	4/3/2019 11:00:30 PM	4/3/2019 11:25:42 PM	00
Batch 2 - Cycle 9	4/4/2019 1:00:30 AM	4/4/2019 1:25:42 AM	00
Batch 2 - Cycle 10	4/4/2019 3:00:30 AM	4/4/2019 3:25:42 AM	00
Batch 2 - Cycle 11	4/4/2019 5:00:30 AM	4/4/2019 5:25:42 AM	00
Batch 2 - Cycle 12	4/4/2019 7:00:30 AM	4/4/2019 7:25:42 AM	00
Batch 3 - Cycle 1	4/3/2019 9:25:42 AM	4/3/2019 9:48:48 AM	00
Batch 3 - Cycle 2	4/3/2019 11:25:42 AM	4/3/2019 11:48:48 AM	00
Batch 3 - Cycle 3	4/3/2019 1:25:42 PM	4/3/2019 1:48:48 PM	00
Batch 3 - Cycle 4	4/3/2019 3:25:42 PM	4/3/2019 3:48:48 PM	00
Batch 3 - Cycle 5	4/3/2019 5:25:42 PM	4/3/2019 5:48:48 PM	00
Batch 3 - Cycle 6	4/3/2019 7:25:42 PM	4/3/2019 7:48:48 PM	00
Batch 3 - Cycle 7	4/3/2019 9:25:42 PM	4/3/2019 9:48:48 PM	00

GBG Batch Planner - Features

- Add and start new batches in a scheduled running method. Identify and manage timing conflicts between batches.
- Create a new batch with a single click.
- A unique batch ID for tracking of different batches processed by a specific method.
- Enter the time to read each plate, how frequently the plate is to be read and the duration of time-course experiment.
- Plates can be specified by barcodes from a file or list, or barcodes can be read at runtime as plates are removed from storage
- Foresee whether workcell is available or otherwise get the next available time for processing the batch.
- Displays the calendar for availability of the workcell.



GBG Batch Planner - Benefits

- Access of the system by multiple users while it is running to queue or interleave their batch of samples.
- Improve throughput on the workcell and maximize access in setting multiple time-course experiments.
- Inventory management for the scheduled run with different batches processed from the storage.
- Schedule long experiments of several days with many batches of time-course studies on the same workcell.
- View the queued batches and remaining plates with time stamp during the run.
- Schedule maintenance on instrument, show instrument availability on the calendar, and prevent its use during the maintenance period.

System Requirements

- Recommended PC specifications are Intel Core i5 processor with minimum 4GB of RAM.
- Compatible with Green Button Go 2019 and above.
- GBG Batch Planner supports instruments including plate readers and imagers.

We support you in integrating, controlling and monitoring your workflows by offering training, method development support, software upgrades and service agreements.