## Server-client communication chart:

|  |  |  |  |
| --- | --- | --- | --- |
| **Explanation** | **Response** | **Parameters** | **Request** |
| Client creates the file explorer tree from the response.  Used when loading the page or when updating the file explorer upon user selection. | A dictionary with 2 keys- json: which is used to generate the file explorer tree, and url: which provides the root directory url.  e.g: {json:[,…]  url:" /media/pie/GIT/REM/server/experiments/"} | String with the requested path or empty [].  e.g.  "/media/pie/GIT/REM/server/experiments/exp1" | listdir |
| Used when user clicks 'ok' on an experiment file, initiating the parameter generation | A dictionary with the column (cols) and the models of the specific experiment.  e.g.:  { cols:["arguments", "arguments-description", "avg", "cache-auction-round", "cache-auction-time", "cache-bid",…]  models:{,…}  Line:{x\_axis: {type: "single", filterByValue: false}, y\_axis: {type: "single", filterByValue: false},…} } | String with the requested path (id of the selected node) or empty [].  e.g.  "/media/pie/GIT/REM/server/experiments/exp1" | getcolumns |
| When a field is marked as 'filterByValue = true' we would like to filter by a specific value, and not by the column name.  When a user selects a column, we query the server for the values of that column. | A dictionary with all the values of the requested column (parameters) and the axis name (key)  e.g.: {"parameters": ["Host", "vm-1", "vm-2"], "key": "group\_by"} | A dictionary with the name of the axis and the selected column name.  e.g.: {"key":"group\_by","parameters":"name"} | getvals |
| When user finishes selecting the parameters and clicks ok to display the graph, OR, when a preset is selected. | Dictionary containing the div to insert in the html, and the corresponding js to run (as a string).  e.g:  {div:"↵<div class="bk-root">↵ <div class="bk-plotdiv" id="40157552-5d48-4bfa-969e-1f398d7750ef"></div>↵</div>"  js:"(function() {↵ var fn = function() {↵ Bokeh.safely(function() {↵ var d.."} | Dictionary with the required parameters to plot  e.g: {"Line":{"y\_axis":"performance","x\_axis":"timestamp","group\_by":{"name":["vm-1","vm-2"]}}} | plot |
| Used when the 'save' button is pressed. | "preset saved" or server error | Dictionary containing the provided name, and the preset details  name:"line"  preset: Line: {x\_axis: "timestamp", y\_axis: "performance", group\_by: {name: ["vm-1", "vm-2"]}}}Name | save |
| Used when selecting an experiment, reload preset button clicked, or when changes occur to the preset list (save/delete) | A dictionary where the key is the given name of the preset, and the value is the paramteres.  My\_preset:{Line: {y\_axis: "performance", x\_axis: "timestamp", group\_by: {name: ["vm-1", "vm-2"]}}} | [] – no parameters | load |
| Used when the 'delete' button is pressed on the preset tab. | "preset deleted" or server error | List of strings- names of the selected presets  ["my\_preset",  "other\_preset] | delete |