**Full Data Dictionary**

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| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Variable Name** | **Data Type** | **Size** | **Scope** | **Description** | **Location** |
|  | MASTERKEY | String | 32 | Global Const | Password used to encrypt and decrypt files. | MAN, log |
|  | PINDATA | String | 60 | Const | File path to user-group PINs excel file. | LOG |
|  | EMPLOYEEDATA | String | 60 | Const | File path to employee data excel file. | MAN |
|  | SHIFTDATA | String | 60 | Const | File path to shift-blocks excel file. |  |
|  | ROSTERLATEST | String | 60 | Const | File path to roster which is to be sent (the PDF). |  |
|  | ROSTERSUGGESTED | String | 60 | Const | File path to the roster suggested by the chef/managers. |  |
|  | OWNEREMAIL | String | 40 | Local Const | Owner’s email address, from which rosters will be sent. |  |
|  | CURRENTYEAR | Integer | 2 | Const | Index number of years elapsed since 2019 (i.e. 2021 = 2) | SRC |
|  | MAXYEAR | Integer | 2 | Const | Maximum number of years of archived rosters to search through. |
|  | regexTime | Regular Expression | n/a | Global | Validates input against standard form for writing times. | AVA, shf |
|  | regexName | Regular Expression | n/a | Global | Validates input against standard characters for writing names. | DAT |
|  | regexEmail | Regular Expression | n/a | Local | Validates input against standard form for writing email addresses. |
|  | regexPhone | Regular Expression | n/a | Local | Validates input against standard form for writing phone numbers. |
|  | employeeData | Record Structure | n/a | Global | Contains data on each employee used throughout the program. | MAN |
|  | nameFirst | String | 15 | Global | Employee’s first name. |
|  | nameLast | String | 20 | Global | Employee’s last name. |
|  | phoneNumber | String | 10 | Global | Employee’s phone number. |
|  | emailAddress | String | 40 | Global | Employee’s email address |
|  | openClose | Boolean | 1 | Global | Employee’s ability to open/close the café. |
|  | availabilityStored | String | 9 | Global | Is employee’s availability added/stored in the database? False = “Missing”, true = “Submitted”. |
|  | colourCode | String | 6 | Global | Employee’s colour which their name will be coloured in when rosters are published. |
|  | availability | Record Structure | n/a | Global | Employee’s availability for each day of the week. |
|  | startTime | Integer | 5 | Global | When the employee can start working. |
|  | endTime | Integer | 5 | Global | When the employee must finish working. |
|  | colDay | Collection | n/a | Local | A collection of seven ‘colStaff’ collections, one for each day of the week. |
|  | colStaff | Collection | n/a | Local | A collection of all combination boxes in one “day column” (incl. both Staff and Shift boxes). |
|  | nameFirstNew | String | 15 | Local | Used when getting input from the user to set new values into records. | DAT |
|  | nameLastNew | String | 20 | Local |
|  | phoneNumberNew | String | 10 | Local |
|  | emailAddressNew | String | 40 | Local |
|  | openCloseNew | Boolean | 1 | Local |
|  | colourCodeNew | String | 6 | Local |
|  | startTimeNew | String | 8 | Local | SHF |
|  | endTimeNew | String | 8 | Local |
|  | shiftCount | Integer | 8 | Local | Keeps track of how many shifts are in the system so more can be added/removed. Used in loops. |
|  | dataCount | Integer | 8 | Local | Keeps track of how many employee data records are in the system so more can be added/removed. Used in loops. | DAT |
|  | selected | Integer | 8 | Local | The index of the item selected in the list box. | DAT, SHF |
|  | userGroup | Integer | 1 | Global | Type of user than is logged on. Owner = 1, Chef/Manager = 2. | LOG, man |
|  | pinReal | String | 4 | Global | User group’s stored PIN (in excel file). |
|  | pinNew | String | 4 | Local | New PIN entered by user via input boxes. | MAN, LOG |
|  | pinTry | String | 4 | Local | PIN entered by user when logging on & resetting PIN. Compared to ‘pinReal’. |
|  | pinRedo | String | 4 | Local | PIN re-entered by user to ensure match with ‘pinNew’. | MAN |
|  | rosterSent | Boolean | 1 | Local | If roster has been sent during current session, set to true. Used to check if sent before quitting application. |
|  | shtRoster | Excel Worksheet | n/a | Local | Worksheet containing an unformatted roster/archive (e.g. Suggested/Final). |
|  | shtShifts | Excel Worksheet | n/a | Local | Worksheet containing saved shift-blocks. |
|  | shtData | Excel Worksheet | n/a | Local | Excel worksheet containing employee data. |
|  | shtPins | Excel Worksheet | n/a | Local | Worksheet containing user-group logon PINs. | LOG |
|  | shtSearch | Excel Worksheet | n/a | Local | Archived roster opened during searching. | SRC |
|  | mode | String | 10 | Local | Parameter for subroutines to specify what subset of functions execute or the format of the returned data (e.g. ConvertTime function). | AVA, shf |
|  | time | String | 8 | Local | Input to subroutine in standard time format (h:mm:ss tt). |
|  | timeInt | Integer | 6 | Local | Output of subroutine, time as an integer of minutes. |
|  | timeStr | String | 8 | Local | Output of subroutine, time in the standard format. |
|  | sendTo | String | 40 | Local | Email address to send roster to. | MAN |
|  | subject | String | 40 | Local | Subject line of the email. |
|  | body | String | 240 | Local | Body text of the email. |
|  | smtpServer | String | 40 | Local | Optional, if needed to send email. Smtp output server address. |
|  | results | Record Structure | n/a | Local | Structure containing information on the shifts that were returned as results of the search. | SRC |
|  | year | Integer | 2 | Local | Year when the roster was archived. Stores as an index starting at 0 in 2019. |
|  | week | Integer | 2 | Local | Week of the year roster was archived (0 to 52). |
|  | date | String | 8 | Local | Date shift was worked (dd/MM/yy). |
|  | timeStart | Integer | 6 | Local | Time the shift started. |
|  | timeEnd | Integer | 6 | Local | Time the shift ended. |
|  | totalShifts | Integer | 6 | Local | Search calculation. Total amount of shifts worked by employee. |
|  | totalHours | Integer | 6 | Local | Search calculation. Total number of hours worked. |
|  | earliestStart | Integer | 6 | Local | Search calculation. Earliest shift start time. |
|  | latestEnd | Integer | 6 | Local | Search calculation. Latest shift end time. |
|  | list | Record Structure Array | n/a | Local | The array of record structures to be sorted by the quicksort subroutine. |
|  | field | String | 8 | Local | The field of the record structure (above) to sort by. |
|  | pivot | Integer | 8 | Local | First element of array. |
|  | start | Integer | 8 | Local | First index of array. |
|  | end | Integer | 8 | Local | Last index of array. |
|  | swapTemp | Record Structure | n/a | Local | Used by swap subroutine to rearrange whole records in the array. |
|  | roster | Integer | 4 | Local | Used as index variables in for loops. |
|  | week | Integer | 4 | Local |
|  | day | Integer | 4 | Local |
|  | record | Integer | 4 | Local |
|  | i | Integer | 8 | Local | Used as index variables in for loops. | Various |
|  | j | Integer | 8 | Local |
|  | k | Integer | 8 | Local |