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function [] = exportData(...
    exchange, ...
    portfolio, ...
    performance, ...
    account, ...
    timeStamp)
% Export all data from the
% simulation to files that can
% be analyzed in Excel.
% The data will be written
% to text files, but separated
% by commas to satisfy the CSV
% format.

% Simulation output data - folder name:
timeStampString = sprintf('%04d%02d%02d_%02d_%02d_%02.0f', ...
    timeStamp(1),timeStamp(2),timeStamp(3), ...
    timeStamp(4),timeStamp(5),timeStamp(6));
% Concatenate strings to make folder name.
outputFolderName = ['./Simulation_' timeStampString];

% Create folder for output data.
mkdir(outputFolderName);

% Write portfolio performance data
% to a CSV file.
% Prepare file.
temp = sprintf('/%s.csv',performance.name);
fileName_performance = [outputFolderName temp];
fileID_performance = fopen(fileName_performance, 'w');
% Write data.
fprintf(fileID_performance, 'Performance Struct Name:');
fprintf(fileID_performance,performance.name);
fprintf(fileID_performance, '\n');
fprintf(fileID_performance, 'Portfolio Tracked:');
fprintf(fileID_performance,performance.portfolioTracked);
fprintf(fileID_performance, '\n\n');
fprintf(fileID_performance, 'Year,');
fprintf(fileID_performance, 'Month,');
fprintf(fileID_performance, 'Day,');
fprintf(fileID_performance, 'Total Investment,');
fprintf(fileID_performance, 'Total Revenue,');
fprintf(fileID_performance, 'Total Value,');
fprintf(fileID_performance, '\n');
for i = (1:length(performance.year))
    fprintf(fileID_performance, '%d,',performance.year(i));
    fprintf(fileID_performance, '%d,',performance.month(i));
    fprintf(fileID_performance, '%d,',performance.day(i));
    fprintf(fileID_performance, '%0.2f,',performance.totalInvestment(i));
    fprintf(fileID_performance, '%0.2f,',performance.totalRevenue(i));
    fprintf(fileID_performance, '%0.2f',performance.totalValue(i));
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        fprintf(fileID_performance, '\n');
end
% Close file.
fclose(fileID_performance);

% Write investment account data
% to a CSV file.
% Prepare file.
temp = sprintf('/%s.csv', account.name);
fileName_account = [outputFolderName temp];
fileID_account = fopen(fileName_account, 'w');
% Write data.
fprintf(fileID_account, 'Account Name,');
fprintf(fileID_account, account.name);
fprintf(fileID_account, '\n\n');
fprintf(fileID_account, 'Year,');
fprintf(fileID_account, 'Month,');
fprintf(fileID_account, 'Day,');
fprintf(fileID_account, 'Balance,');
fprintf(fileID_account, '\n');
for i = (1:length(account.year))
    fprintf(fileID_account, '%d,', account.year(i));
    fprintf(fileID_account, '%d,', account.month(i));
    fprintf(fileID_account, '%d,', account.day(i));
    fprintf(fileID_account, '%0.2f', account.balance(i));
    fprintf(fileID_account, '\n');
end
% Close file.
fclose(fileID_account);

% Write transaction table to a file.
% Prepare file.
fileName_transactions = [outputFolderName '/transactions.csv'];
fileID_transactions = fopen(fileName_transactions, 'w');
% Write data.
fprintf(fileID_transactions, 'Transaction,');
fprintf(fileID_transactions, 'Year,');
fprintf(fileID_transactions, 'Month,');
fprintf(fileID_transactions, 'Day,');
fprintf(fileID_transactions, 'Hour,');
fprintf(fileID_transactions, 'Minute,');
fprintf(fileID_transactions, 'Second,');
fprintf(fileID_transactions, 'Symbol,');
fprintf(fileID_transactions, 'Price,');
fprintf(fileID_transactions, 'Shares,');
fprintf(fileID_transactions, 'Total');
fprintf(fileID_transactions, '\n');
for i = (1:size(portfolio.transactions,1))
    fprintf(fileID_transactions, '%s,', portfolio.transactions{i,1});
    fprintf(fileID_transactions, '%d,', portfolio.transactions{i,2});
    fprintf(fileID_transactions, '%d,', portfolio.transactions{i,3});
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fprintf(fileID_transactions, '%d', portfolio.transactions{i,4});
fprintf(fileID_transactions, '%d', portfolio.transactions{i,5});
fprintf(fileID_transactions, '%d', portfolio.transactions{i,6});
fprintf(fileID_transactions, '%0.3f', portfolio.transactions{i,7});
fprintf(fileID_transactions, '%s', portfolio.transactions{i,8});
fprintf(fileID_transactions, '%0.2f', portfolio.transactions{i,9});
fprintf(fileID_transactions, '%d', portfolio.transactions{i,10});
fprintf(fileID_transactions, '%0.2f', portfolio.transactions{i,11});
fprintf(fileID_transactions, '\n');
end
% Close file.
fclose(fileID_transactions);

% Write stock exchange data to a file.
% Prepare folder.
stockExchangeDataFolder = [outputFolderName '/Stock_Exchange'];
mkdir(stockExchangeDataFolder);
% Create a data file for each stock
% in the exchange.
for i = (1:length(exchange))
    % Prepare current data file.
    currentStockDataFile = sprintf( '/%s.csv', exchange(i).symbol);
    fileName_currentStock = ...
        [stockExchangeDataFolder currentStockDataFile];
    fileID_currentStock = fopen(fileName_currentStock, 'w');
    % Write data.
    fprintf(fileID_currentStock, 'Name,');
    fprintf(fileID_currentStock, '%s\n', exchange(i).name);
    fprintf(fileID_currentStock, 'Symbol,');
    fprintf(fileID_currentStock, '%s\n', exchange(i).symbol);
    fprintf(fileID_currentStock, 'Exchange,');
    fprintf(fileID_currentStock, '%s\n', exchange(i).exchange);
    fprintf(fileID_currentStock, 'Current Price,');
    fprintf(fileID_currentStock, '%0.2f\n', exchange(i).currentPrice);
    fprintf(fileID_currentStock, '\n');
    fprintf(fileID_currentStock, 'Stock Activity');
    fprintf(fileID_currentStock, '\n\n');
    fprintf(fileID_currentStock, 'Year,');
    fprintf(fileID_currentStock, 'Month,');
    fprintf(fileID_currentStock, 'Day,');
    fprintf(fileID_currentStock, 'High,');
    fprintf(fileID_currentStock, 'Low,');
    fprintf(fileID_currentStock, 'Close,');
    fprintf(fileID_currentStock, 'Volume');
    fprintf(fileID_currentStock, '\n');
    for j = (1:length(exchange(i).year))
        fprintf(fileID_currentStock, '%d', exchange(i).year(j));
        fprintf(fileID_currentStock, '%d', exchange(i).month(j));
        fprintf(fileID_currentStock, '%d', exchange(i).day(j));
        fprintf(fileID_currentStock, '%0.2f', exchange(i).high(j));
        fprintf(fileID_currentStock, '%0.2f', exchange(i).low(j));
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        fprintf(fileID_currentStock, '%0.2f', exchange(i).close(j));
        fprintf(fileID_currentStock, '%d', exchange(i).volume(j));
        fprintf(fileID_currentStock, '\n');
    end
    % Close current file.
    fclose(fileID_currentStock);
end

% Copy the parameters file
% into the results folder
% so we know which parameters
% were used to produce that
% data.
copyfile('./parameters.m', outputFolderName);

return;

end
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