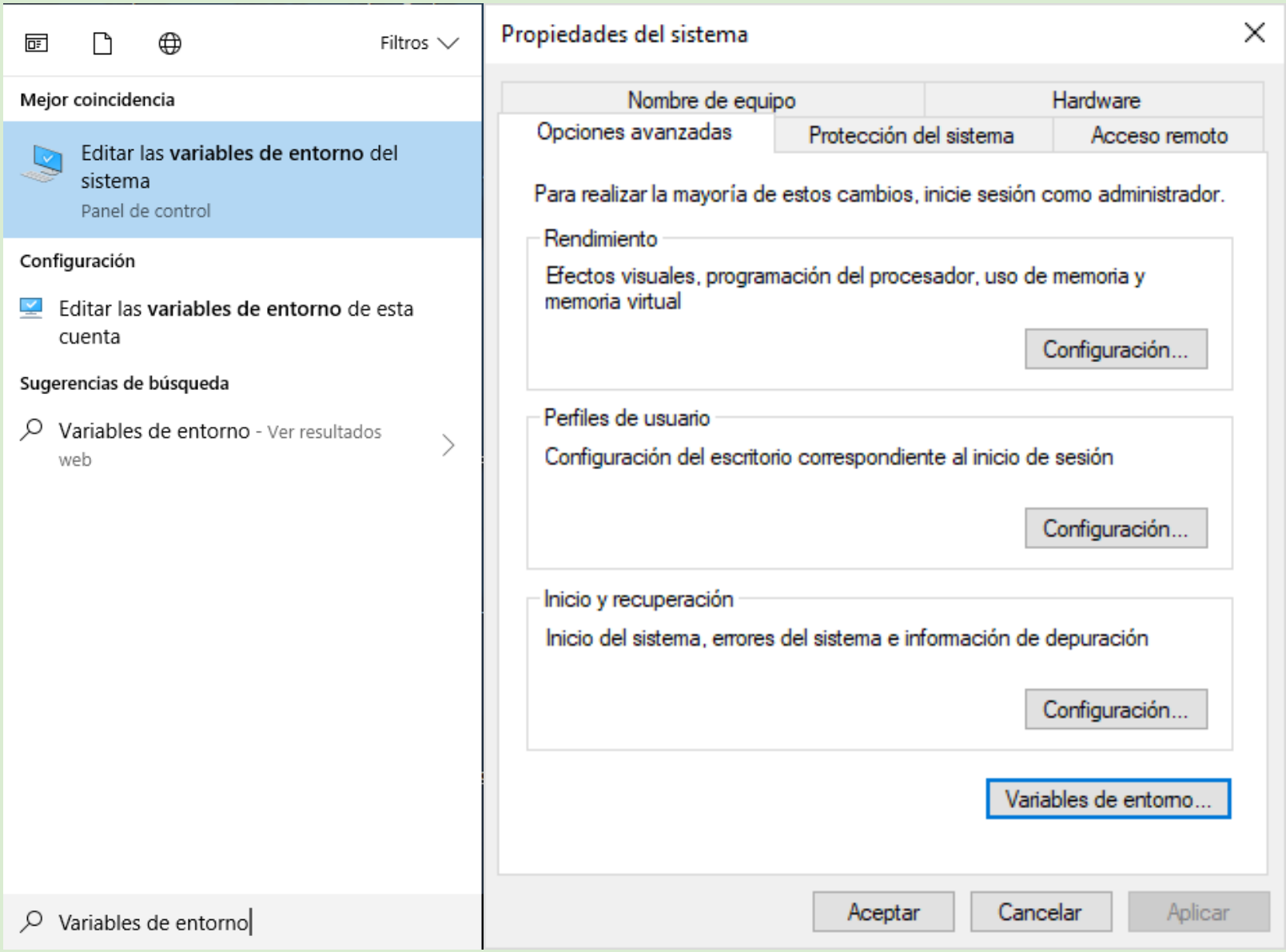
JAGS

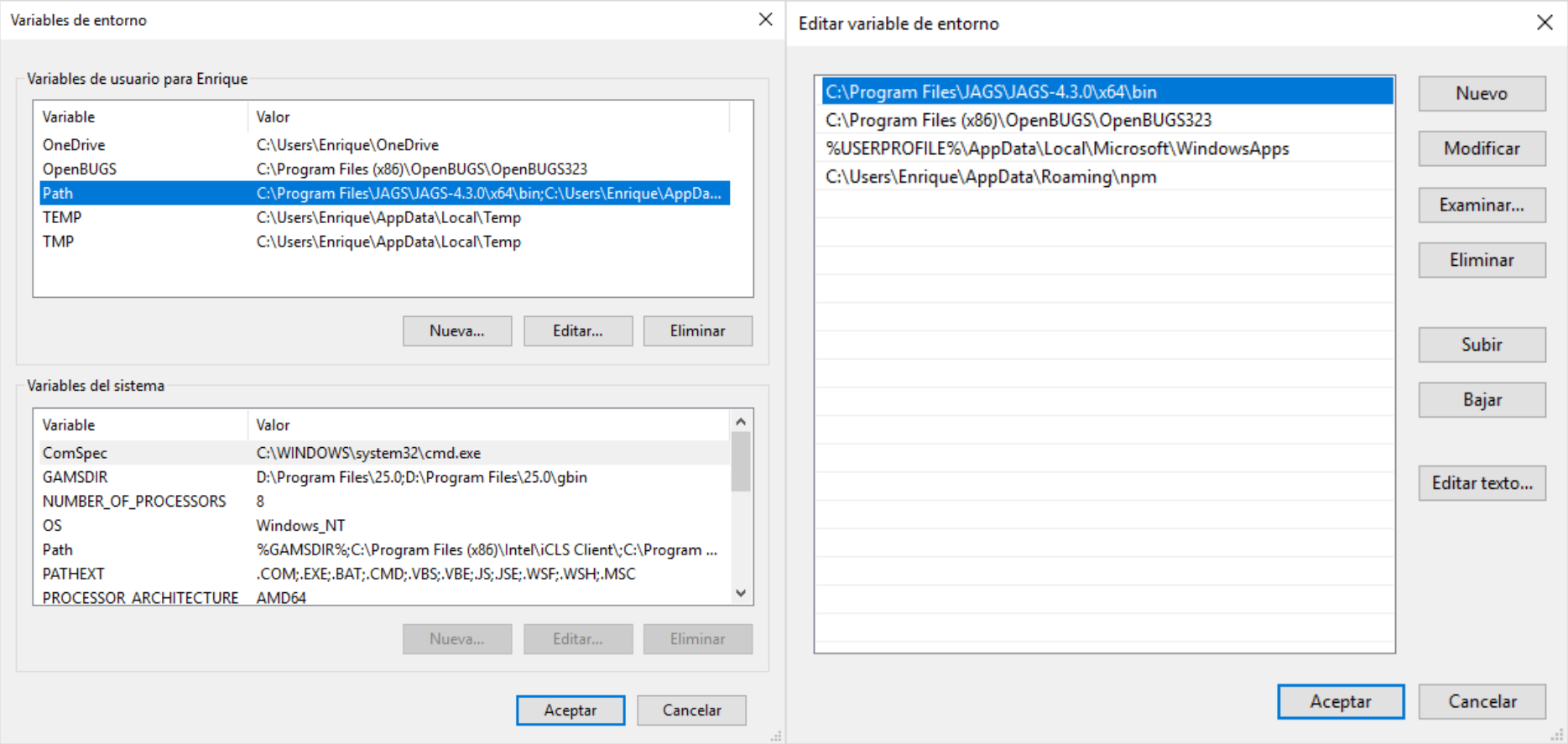
OpenBUGS

Environment Variables



Environment variables for the account need to be defined for the jags software to be identified.

Environment Variables



The path to the application must be incorporated to the environment variable “Path”.

Jags Parabolic Regression Example

```
%%%
```

Preparing Data and Initial Values

```
%% Defining some MCMC parameters for JAGS
nchains  = nchains; % How Many Chains?
nburnin  = nburnin; % How Many Burn-in Samples?
nsamples = nsamples;  % How Many Recorded Samples?
DATAvar={'N', 'x', 'y'};
aux='datastruct = struct(';
for i=1:length(DATAvar)
    if i==length(DATAvar)
        aux=[aux '''' DATAvar{i} ''',' DATAvar{i}, ')'];
    else
        aux=[aux '''' DATAvar{i} ''',' DATAvar{i} ','];
    end
end
eval(aux);
INITIALSvar={'a', 'b', 'sigma'};
for i=1:length(INITIALSvar)
    aux=['S.' INITIALSvar{i} '=' INITIALSvar{i} 'Initial;'];
    eval(aux);
end
for chain=1:nchains
    S.a=aInitial;
    S.b=bInitial;
    S.sigma=sigmaInitial;
    init0(chain)=S;
end
```

Preparing Data and Initial values.

Calling Matjags Procedure

```
%% Calling JAGS to sample
doparallel = 0; % do not use parallelization
fprintf( 'Running JAGS...\n' );
tic
[samples, stats, structArray] = matjags( ...
    datastruct, ...                          % Observed data
    fullfile(Commandsfilename), ...     % File that contains model definition
    init0, ...                               % Initial values for latent variables
    'doparallel' , doparallel, ...           % Parallelization flag
    'nchains', nchains,...                   % Number of MCMC chains
    'nburnin', nburnin,...                   % Number of burnin steps
    'nsamples', nsamples, ...                % Number of samples to extract
    'thin', 1, ...                           % Thinning parameter
    'dic', 1, ...                            % Do the DIC?
    'monitorparams', {'a','b','sigma'}, ... % List of latent variables to monitor
    'savejagsoutput' , 1 , ...               % Save command line output produced by JAGS?
    'verbosity' , 2 , ...                    % Output: 0=no;1=minimal;2=maximum;
    'cleanup' , 0 );                         % clean up of temporary files?
toc
```

Calling matjags procedure.

Recovering Monitored Simulated Parameters and Obtaining Some Statistics

```
%%%
```