

```

# ... represents all the arguments taken in by the rdist function
RM_explicit <- function(rdist){
  function(N, ..., symm = FALSE){
    # Create an [N x N] matrix sampling the rows from rdist, passing ... to rdist
    P <- matrix(rdist(N^2, ...), nrow = N)
    # Make symmetric if prompted
    if(symm){P <- .makeHermitian(P)}
    # Return P
    P
  }
}

# A version where we add an imaginary component
RM_explicit_cplx <- function(rdist){
  RM_dist <- function(N, ..., symm = FALSE, cplx = FALSE, herm = FALSE){
    # Create an [N x N] matrix sampling the rows from rdist, passing ... to rdist
    P <- matrix(rdist(N^2, ...), nrow = N)
    # Make symmetric/hermitian if prompted
    if(symm || herm){P <- .makeHermitian(P)}
    # Returns a matrix with complex (and hermitian) entries if prompted
    if(cplx){
      # Recursively add imaginary components as 1i * instance of real-valued matrix.
      Im_P <- (1i * RM_dist(N, ...))
      # Make imaginary part Hermitian if prompted
      if(herm){P <- P + .makeHermitian(Im_P)}
      else{P <- P + Im_P}
    }
    P # Return the matrix
  }
}

```