

```

function [dictionary, state_count_vector, insert_index] = state_dictionary_insert(dictionary,
state_count_vector, insert_item)

num_items = size(dictionary,2);

[insert_index] = find_dictionary_index(dictionary, insert_item);

%if true, then we're inserting before the end of the dictionary
if(insert_index <= num_items)

    index_item = dictionary{insert_index};

    %if true, then there's nothing to insert
    if(compare_states(index_item, insert_item) == 0)

        state_count_vector(insert_index) = state_count_vector(insert_index) + 1;

    else

        dictionary = insert_array_item(dictionary, insert_item, insert_index);

        %syntax issue: if true, then there are at least two items in the state_count_vector
        if(num_items > 2)

            state_count_vector = [state_count_vector(1 : insert_index) 1 state_count_vector(insert_index + 1 :
num_entries)];

        else

            state_count_vector(num_entries + 1) = 1;

        endif

    endif

endif

%otherwise, we're inserting at the end of the list, which means the item is new
else

    dictionary = insert_array_item(dictionary, insert_item, insert_index);
    state_count_vector(num_items + 1) = 1;

endif

endfunction

```