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; mailing-list.lisp
; Created on March 27, 2013 by Adam Ghodrathnama
;
; This file will create a request to register a mailing list. An XML mailing
; list file will be created from the following arguments:
; -Mailing list name (name string)
; -List of addresses '('(domain1 name1)... '(domainN nameN))
; -And an owner (name password)
;
; CHANGE LOG:
; -----
; 2013-03-27 - Initial file conception.
;            - Creation of XML Generating functions:
;            addressesXML and ownerXML
; 2013-03-28 - Creation of file output method
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(in-package "ACL2")
(include-book "../..../include/io-utilities")
(include-book "../..../include/xml-scanner")

; (addressesXML address)
; Generates the XML form for an address from the address structure.
; address - the address structure in the form of (domain name).
(defun addressesXML (address)
  (if (endp address)
      nil
      ; Domain tag <domain>#PCDATA</domain>
      (let* ((domain (concatenate 'string
                                   "<domain>" (car address) "</domain>"))
              ; Name tag <name>#PCDATA</name>
              (name (concatenate 'string
                                   "<name>" (cadr address) "</name>"))
              ; Create a list with the address fields in it
              (regRequest (list domain name)))
        regRequest)))

;Generates the XML form for an owner for use in a mailing list
;owner - the owner structure in the form of (owner password)
(defun ownerXML (ownerInfo)
  (if (endp ownerInfo)
      nil
      ; Name tag <name>#PCDATA</name>
      (let* ((name (concatenate 'string
                                   "<name>" (car ownerInfo) "</name>"))
              ; Password tag <password>#PCDATA</password>
              (password (concatenate 'string
                                   "<password>" (cadr ownerInfo) "</password>"))
              ; Create a list with the ownerInfo fields in it
              (regRequest (list name password)))
        regRequest)))

; The purpose of this function is to create an XML file that requests
; access for the creation of a mailing list.
;
; The function will create an XML file containing the name of the mailing
; list, addresses to be sent to, and the owner
; password for a user
;
; Example call: (createRequest '("localhost" "adam" "password") timeStamp state)
;
(defun createRequest (name addresses owner timeStamp state)
  (let* ((domain (car (addressesXML addresses)))
         (name (cadr (addressesXML addresses)))
         (ownerName (car (ownerXML owner)))
         (ownerPass (cadr (ownerXML owner))))
    (mv-let (error state)

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(string-list->file
  (concatenate 'string
    (string-append "request-mailing-list" (rat->str timeStamp 0))
    ".xml")
  (list
    "<?xml version='1.0'?>"
    "<!DOCTYPE mailing-list SYSTEM '../.../dtd/mailling-list.dtd'"
    (concatenate 'string
      (string-append "<list-name>" name)
      "</list-name>")
    "<address>"
    domain
    name
    "</address>"
    "<owners>"
    "<owner>"
    ownerName
    ownerPass
    "</owner>"
    "</owners>")
  state)
(if error
  (mv error state)
  (mv "Wrote mailing-list creation request" state))))

```