International Activities for the year 2002:

ISO meeting: Participate in ISO WG 2 and 14.

WG2: the group deals with ISO 15099 document which is the calculation procedure for rating fenestration product for U-factor, SHGC and VT.
Status: The document ISO 15099 is complete and is sent for final ballot. However, examples on how to use this document need to be developed. We plan to provide product drawing and develop some examples for this document and present it to the group. These example problems would also be used by NFRC for its software approval procedures.

Achievements: Our participation in this working group has been very productive. Dr. Dragan Curcija has provided all the logistical calculation procedures that were adopted by the ISO working group. This document is in the final stage of becoming an ISO document, in ISO term it is at FDIS stage where the countries only has the vote to say yes to accept or no not to accept. As major European countries were convinced about the superiority of this standard the passage of this document as an ISO document is high. This document has also benefited NFRC as in November the membership voted to adopt the ISO 15099 procedure as the basis to calculate the U-factor, SHGC and VT for rating purpose. WINDOW5 and THERM5 would be fully compliant to the ISO 15099 procedure.

WG 14: the group deals with ISO 12567-1 and 2 documents, which is the calculation procedure for rating fenestration product for U-factor. Part-1 deals with regular planner fenestration products while Part-2 deals with projecting fenestration products.
Status: ISO 12567-1 document is complete and has been submitted to ISO secretariat for publication. NFRC has benefited from several items from this procedure as it helps improve the quality of the thermal test results and be more accurate. NFRC is currently doing a research to learn the impact of new calibration procedure on the results of the thermal testing of fenestration products.
ISO 12567-2 is still being worked on and is sitll the draft. This document was circulated as a DIS ballot and received severall comments from voting countries which are being addressed at the Working group meetings.
Acheivements: At the last meeting at Zurich, Switzerland we were able to convince the working group on to main issues of 1) allowing no restriction on the projection of the fenestration product, 2) recalculating the linear transmittance tables. First point was of importance to NFRC as it would have restricted the testing of several skylights and garden windows.
Once completed it will provide NFRC with recogined procedure to test projecting products. US standards and testing procedures for projecting product have been week and requires modification. These would certainly benefit both the NFRC and the ASTM.

IEA Task 27 and 31

IEA task 27 and 31 will meet at Copenhagen, Denmark. There are several issues of intrest that would benefit NFRC and the research groups in the US.
-Glossary of terminology for fenestration products is being developed under this task.
-ALLSET is going to present its final report on solar calorimeter testing, a subject that is of importance to NFRC.
-Durability of fenestration product is also on the task groups agenda which is of importance to NFRC
-At the upcoming meeting there is going to be presentation on Window rating. A key issue where NFRC needs to have it input.
-Daylighting rating is of importance for NFRC. Task 31 has several items on the agenda that addresses these issues.

Acheivements:

- Dr. Dragan Curcija is providing input to the glossary document. This document is also being prepared for NFRC adoption.
- Dr. Dragan Curcija and Bipin Shah had been successful in putting window rating procedures on the agenda list. European Union is working towards developing a rating procedure and our input and engagement is critical.

THERM5 WINDOW5 and OPTIC5 training for international partners:

NFRC along with U-Mass and LBNL would be hosting a THERM5, WINDOW5 and OPTICS5 training for international partners that have been actively working and participating with the NFRC program or have interest in developing rating standards or procedures in their country. The countries to be invited for this workshop would be Russia, Lithuania, Latvia, Ukraine, China, India, Brazil, and Mexico. The ISO WG-2 participant countries would also be invited to demonstrate the adoption of ISO 15099 in the software development, the countries are UK, Denmark, Netherlands, Switzerland, Sweden, Germany, Austria, and etc.

Benefit: Will be able to demonstrate that the software programs are ISO 15099 and 9050 compliant. Will be able to encourage the countries to adopt the tool used by NFRC for its rating procedures, resulting in harmonization. Encourage European countries to adopt THERM and WINDOW5 for their rating procedure.

British Fenestration Ration Council (BFRC) and European Window Energy Rating System (EWERS):

Our efforts to help BFRC establish energy-rating system in UK have been a big success. Today UK is the coordinator for the EWERS and is working on adopting several main features of NFRC rating system. It will be useful to NFRC as the rating system would be harmonized. EWERS is also looking into adopting THERM5 and WINDOW5 as the simulation tool as they are ISO 15099 compatible.

We have been in constant touch with the people involved with the group. For more information visit www.BFRC.org. The site also host the link to EWERS site and workplan.
We will be trying to co-ordinate with the EWERS participant on some of the common task assigned to them by EWERS.

Brazil:
We will be inviting some of the Brazilian industry person to atten the NFRC meeting so that they can learn first hand how NFRC functions. It would be also used to cement our relationship and then build on that platform.
Educational Institute personal identified by industry contacts would be invited to attend the THERM5 and WINDOW5 International workshop.

Mexico:
We would be co-ordinating with Claudio E. y Gabriela on future activities with Mexico. Currently we plan to keep the activities at the same level as 2001, where we encouraged Gabriela to participate at ASHRAE and NFRC meetings. We have even asked them to participate in the NAFS-2 meetings where thermal standard harmonization meet. We keep them apprised of the work done by USA and Canada on thermal harmonization.

Educational Institute and Governmental personal identified by Gabriela would be invited to attend the THERM5 and WINDOW5 International workshop.

China:
Currently several NFRC manufacturers have shown intrest in the Chinese market. We plan to initiate our contact in China by organizing a THERM5 and WINDOW5 workshop in China. We will also educate the industry people about the NFRC rating system by making a presentation to them. We will encourage some of the USA fenestration manufacturers to participate in the workshop.

Russia:

Our contact with Russia has been of great value. A Russian scientist has been helping U-Mass on research items that would benefit NFRC. We plan to co-ordinate with SABIT (US dept of Commerce) and invite more scientist to help the research in the field of fenestration issues which would help the NFRC program.
Educational Institute and Governmental personal identified by Alex Spiridonov would be invited to attend the THERM5 and WINDOW5 International workshop.
We would co-ordinate with Aex Spiridonov to plan a window seminar and workshop in Russia.

Lithuania, Latvia, Estonia:
Educational Institute and Governmental personal identified by Karbauskaite Jurate would be invited to attend the THERM5 and WINDOW5 International workshop.

Ukraine:
Educational Institute and Governmental personal identified by Mark Ayzen would be invited to attend the THERM5 and WINDOW5 International workshop.

India:
Educational Institute and Governmental personal identified by Dr Bansal would be invited to attend the THERM5 and WINDOW5 International workshop.

South Korea:
Educational Institute and Governmental personal identified by Dr. E.J. Lee would be invited to attend the THERM5 and WINDOW5 International workshop.