



Information Technology “Push”

The Automatic Delivery of Electronic
Information for Business

Michael Kaminski, General Motors
Corporation

Need for Key Information

- Knowledge critical to successful business
- Tremendous amount of information available
 - Internet, Web, Databases, etc.
- Rate new information generated is accelerating
- Right people aren't getting the right information
- Get relevant information to the right people at the right time
 - Don't bombard people with a lot of paper

Solution

- Develop electronic capability to provide key information
- Characterize people and/or company interests
- Deliver synopsis that matches profile
- Provide easy access to additional information
- Pilot technology at NCMS
- Move technology to member companies

Push Technology Overview

- Notify members when new information entered
 - Project, Concept, Funding Opportunity
 - Product, Service, Document
- Characterize individuals by areas of interest
- As new information is entered into the system
 - Deliver summary information by e-mail
 - Link to more detailed or contact data on web
- All information maintained in repository
- Profiles maintained by individuals via web

NCMS Pilot

- Identify key contacts within member companies
- Characterize selected members
- Enable “Push” engine
- Attach to new project Concept information
- Modify profiles as appropriate
- Add additional sources of information

Characterization Form

Home Page Data Form - Microsoft Internet Explorer

File Edit View Go Favorites Help

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Address http://www.ncms.org/dr/NDR/hdr_key.idc

Stephen Ricketts Characterization Form

The following form is provided to allow you to enter and maintain information about your specific interests. Include words or phrases separated by commas. These words and phrases will be used to help NCMS periodically select items of interest or notify you when we find information that you would like to know more about.

ID #	17200
Keywords	interactive distance learning, weapon, software, Enterprise Resource Planning, UV light

Keywords

Done Internet zone

Introduce New Information into System

New Page - Microsoft Internet Explorer

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Address http://www.ncms.org/dr/ops/ops_form.idc

Proposal Opportunities Database

34 Proposal Title:

Posted Date: **Final Due Date:**

Proposal Content:

Comments/Notes:

Project Concept Form

ICMS Repository - Idea - Microsoft Internet

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Address http://www.ncms.org/dtr/REP/Rep_Idea.idc

Idea Number: 105 **Last revision: 1998-01-15 11:34:31.270**

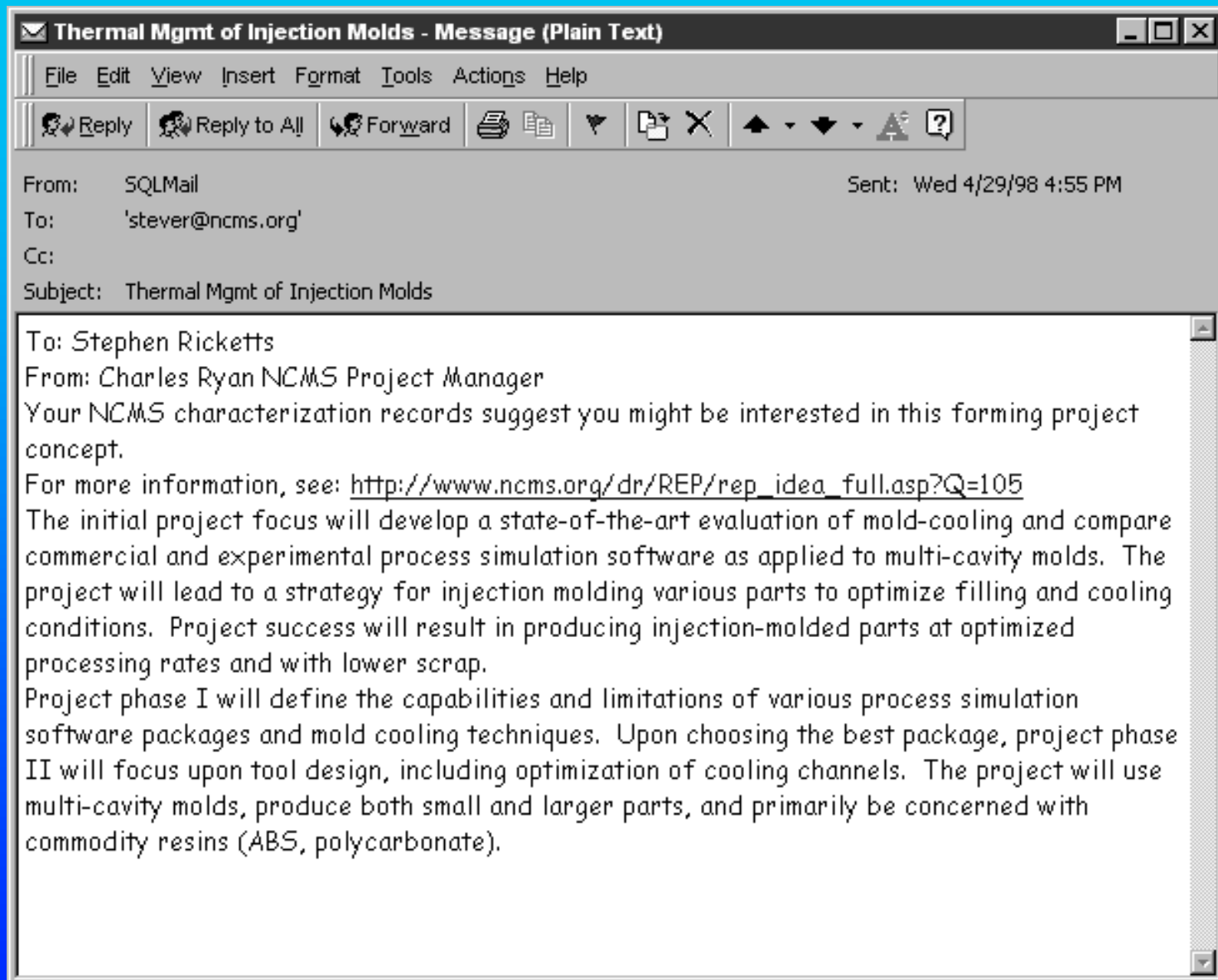
idea_manager	Charles Ryan
idea_name	Thermal Mgmt of Injection Molds
idea_SIG	Manufacturing Processes and Materials
idea_start	1997-01-01 00:00:00.000
idea_active	1900-01-01 00:00:00.000
idea_status	Emerging
idea_state	Workshop
idea_ProjectNumber	
idea_funder	ALC
idea_overview	This project is focusing upon the thermal management of molds including: 1) Cooling theory, 2) Materials selection for molds, 3) Tool Design, 4) Heat exchange mediums, 5) Cooling channel design, 6) Process simulation, 7) Calculating value in technology, 8) Defining rules and techniques in product design, 9)
idea_comments	

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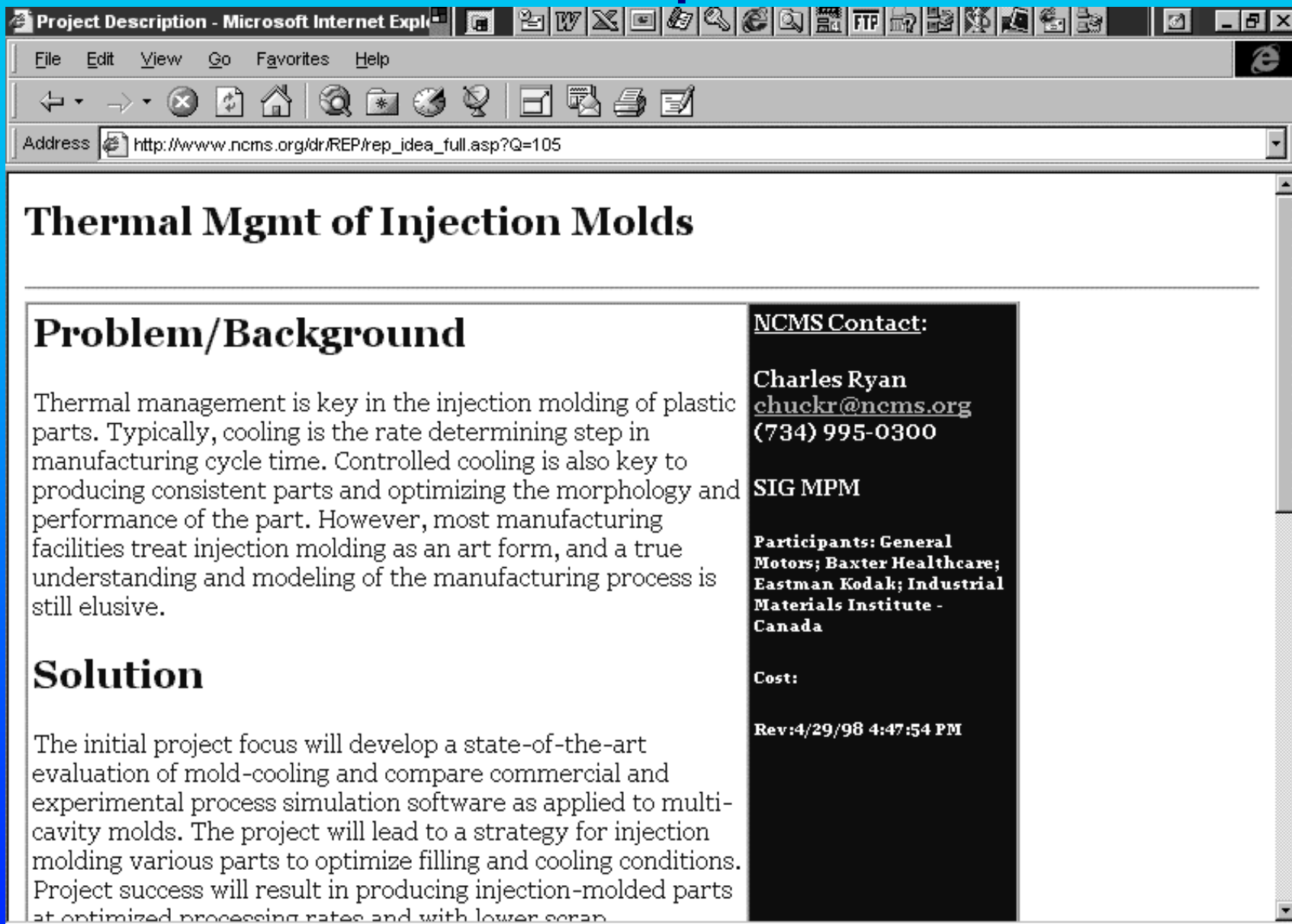
Updating New Information Record

- Information is submitted into system
- People/Company records scanned for matching profiles
- Matched records stored in work table
- Records sorted, duplicates eliminated
- E-mail created for each match
 - Synopsis of information
 - Link to additional detail

E-mail Notification



Web Based Detail Description



The screenshot shows a Microsoft Internet Explorer browser window. The title bar reads 'Project Description - Microsoft Internet Expl...'. The address bar contains the URL 'http://www.ncms.org/dr/REP/rep_idea_full.asp?Q=105'. The main content area features a large heading 'Thermal Mgmt of Injection Molds'. Below this, there is a section titled 'Problem/Background' with a paragraph of text. To the right of this section is a dark grey box containing contact information for Charles Ryan, including an email address and phone number. Below the contact box, there is a section titled 'Solution' with another paragraph of text. The browser's menu bar (File, Edit, View, Go, Favorites, Help) and toolbar are visible at the top.

Thermal Mgmt of Injection Molds

Problem/Background

Thermal management is key in the injection molding of plastic parts. Typically, cooling is the rate determining step in manufacturing cycle time. Controlled cooling is also key to producing consistent parts and optimizing the morphology and performance of the part. However, most manufacturing facilities treat injection molding as an art form, and a true understanding and modeling of the manufacturing process is still elusive.

Solution

The initial project focus will develop a state-of-the-art evaluation of mold-cooling and compare commercial and experimental process simulation software as applied to multi-cavity molds. The project will lead to a strategy for injection molding various parts to optimize filling and cooling conditions. Project success will result in producing injection-molded parts at optimized processing rates and with lower scrap.

NCMS Contact:
Charles Ryan
chuckr@ncms.org
(734) 995-0300

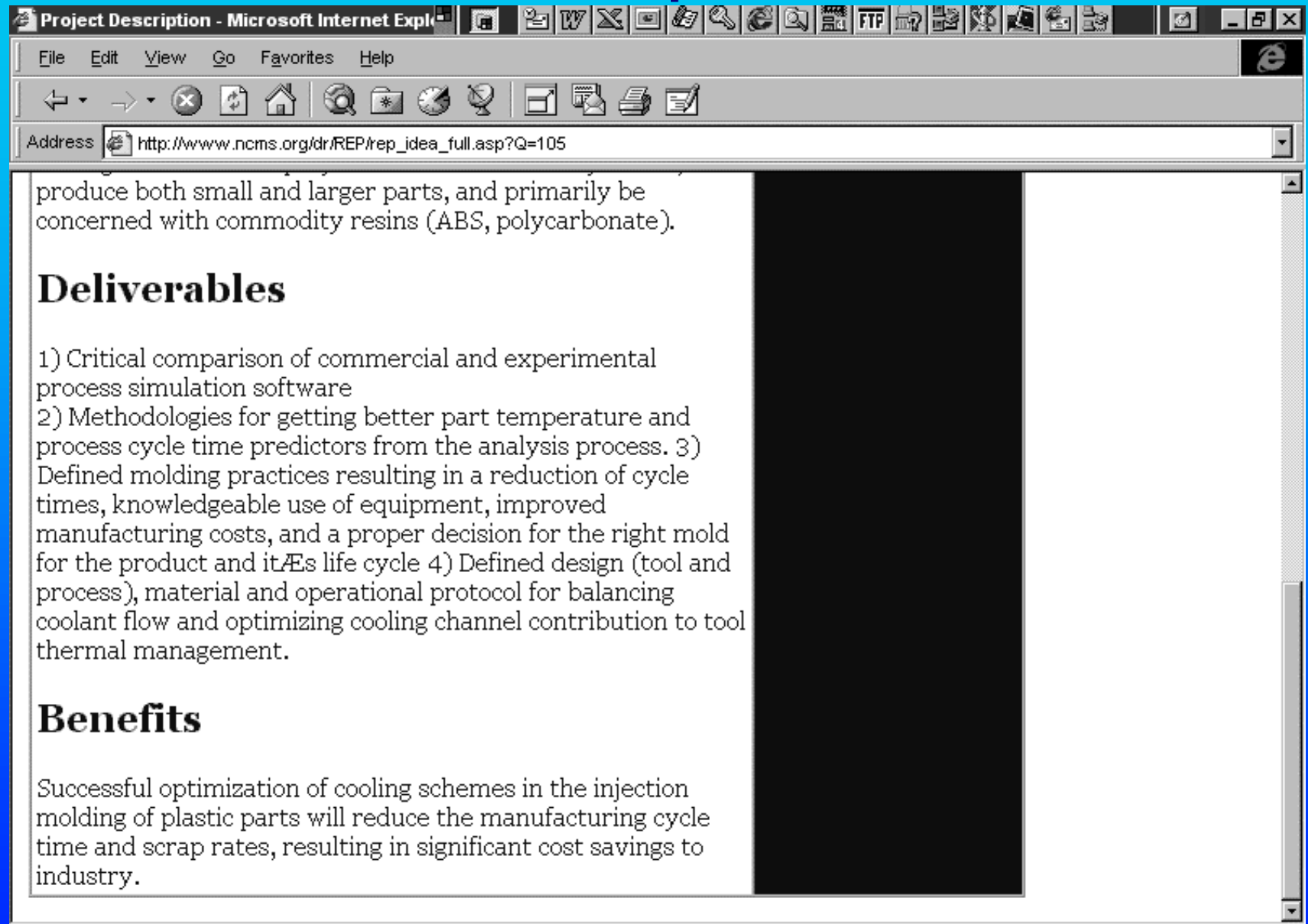
SIG MPM

Participants: General Motors; Baxter Healthcare; Eastman Kodak; Industrial Materials Institute - Canada

Cost:

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Web Based Detail Description



produce both small and larger parts, and primarily be concerned with commodity resins (ABS, polycarbonate).

Deliverables

- 1) Critical comparison of commercial and experimental process simulation software
- 2) Methodologies for getting better part temperature and process cycle time predictors from the analysis process.
- 3) Defined molding practices resulting in a reduction of cycle times, knowledgeable use of equipment, improved manufacturing costs, and a proper decision for the right mold for the product and its life cycle
- 4) Defined design (tool and process), material and operational protocol for balancing coolant flow and optimizing cooling channel contribution to tool thermal management.

Benefits

Successful optimization of cooling schemes in the injection molding of plastic parts will reduce the manufacturing cycle time and scrap rates, resulting in significant cost savings to industry.

NCMS Pilot Objectives

- Prove technology via collaboration
- Acquire valuable information
- Reach key NCMS members
- Move technology to member companies

Summary

- Acquire knowledge critical to successful business
- Deal with rate of information acceleration
- Receive right information at right time