Applications of Virtual Human Signing

John Glauert, Ralph Elliott, Richard Kennaway, Kevin Parsons, Judy Tryggvason, Vince Jennings

UEA NORWICH

School of Computing Sciences

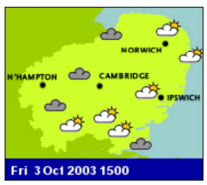
Signing Research at UEA

ViSiCAST: Virtual Signing, Capture, Animation, and Storage was an EU Framework V project involving: *ITC, RNID, Televirtual Ltd, IvD (NL), University of Hamburg (DE), IRT (DE), INT (FR)*. The project developed practical systems for delivering virtual human signing over the internet. An example is the weather forecast system presented below.

eSIGN: Signing on eGovernment Websites is an EU eContent Project involving: *University of Hamburg (DE), RNID, Viataal (NL), Norfolk County Council, Televirtual Ltd, Systematics (DE)*. Building on ViSiCAST, eSIGN is extending applications to eGovernment websites in three countries. New content creation techniques are being developed.

Web Services: Weather Forecasts

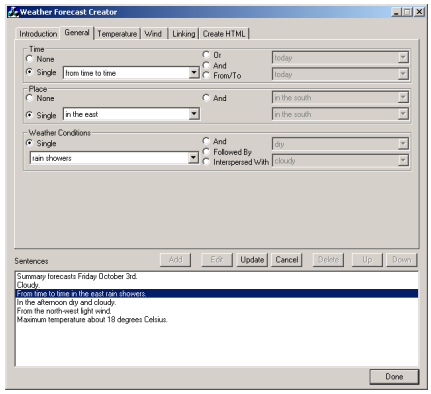
Although the weather forecast varies hour by hour, summary forecasts follow a predictable pattern. The domain can be fully described for a number of natural spoken languages and natural sign languages.



Summary: Mostly cloudy. Some rain in the east for a time.

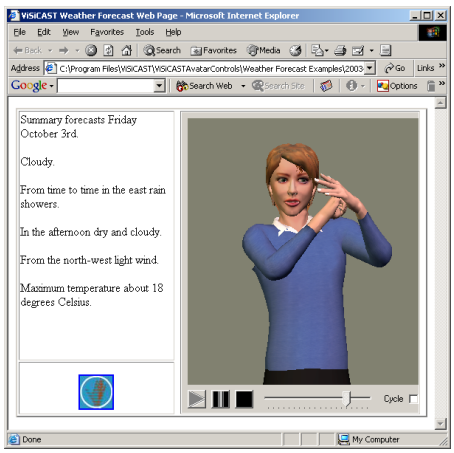
Rest of Today Largely dry, cloudy and fairly dull, but brightening up from northwest. Wind becoming gentle northwesterly. Maximum temperature 18 deg C (64 deg F).

Issued:12:00, 03 Oct 2003



A tool has been developed which allows a non-signer to build forecasts using standard weather phrases. These are then converted into text and sign for a number of languages. Our implementation covers English, BSL, Dutch, SLN (Sign Language of the Netherlands), and DGS (German Sign Language). A web plugin for Internet Explorer enables forecasts to be presented using sign sequences by seamless blending of captured phrases.

A live service is available in the Netherlands and a service is planned in the UK hosted by the RNID.



Signing Content on eGovernment Websites

To enhance the usefulness of the internet for sign language users, especially for dealing with complex interactions, signed commentary will be provided for eGovernment forms. Help information in sign language will accompany information hosted by Norfolk County Council (UK), Viataal (NL), and Hamburg (DE). Content creation will be integrated with standard content management so that traditional multilingual support includes signing with only minimal change to web services logic.

The eSIGN project focuses on content created by synthesis from notation, rather than motion capture. As a result, information can easily be updated without the need for an expensive capture session. Information of an ephemeral nature can be generated automatically and interactively.

References: For further information and papers see http://www.visicast.cmp.uea.ac.uk.

School of Computing Sciences, University of East Anglia, Norwich, NR4 7TJ, UK.
Tel: +44 1603 592847; Fax: +44 1603 593345; http://www.cmp.uea.ac.uk/