

# Advanced switches and other new developments in access

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## 1. Overview

This presentation will highlight available EMG and head pointing products suitable for computer access. It will also cover advanced features in Grid 3 which can help with Touch access, voice recognition and environment control.

Smart box is a commercial supplier of the products described.

## 2. Background

Unique features of Grid 3's voice recognition, eyegaze, head pointing and switch access. These features are useful to anyone who already uses any of eyegaze, head pointing and voice recognition input technology.

## 3. Methods

Grid 3's new features were requested by professionals in the field with whom we work closely and suggested by our observations of potential users of our technology every day. The new EMG switch was brought to our attention by a professional at an NHS England Specialised service in the north of England.

New products have been evaluated with specific uses in mind. This was done alongside professionals in the field and their feedback applied in the product designs.

## 3.1 Ethical statement

The one end user involved has given consent.

## 4. Results

The evaluated products which will be demonstrated on the day have been brought to market.

Results include:

- Grid 3 – New voice recognition, advanced windows controls features and switch scan indicator.
- Switches – New EMG switches 1 x facial muscles and 1 x pure EMG sensor switch (which does not require a computer).
- Touch access – made more accessible.

## 5. Conclusions

New type of switch access for those who can't access existing switches.

More advanced control for eyegaze and head pointer users.

More intuitive voice recognition and environment control.

## Keywords:

Switches, EMG, Eye Gaze, head pointing, assistive technology, accessibility.

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