

Rejuvenating Learning Resources and Working with the JORUM

Phil Barker,
Engineering Subject Centre &
ICBL, Heriot-Watt University.

Phil Barker, March 2006. © Heriot-Watt University.

You may reproduce all or any part of this presentation but please retain acknowledgement of authorship & copyright. Also I would appreciate it if you let me know how you are using it and sent me any feedback <philb@icbl.hw.ac.uk>.

About me



LearnEM



- Learning Technology adviser, for about 12 years
- Main interest is sharing digital learning resources
- Metadata and digital repository coordinator for CETIS

ReSET and LearnEm

- Two projects creating learning resources by “rejuvenating” or “repackaging” existing material.
- Aims
 - Build on known successes
 - Extend lifespan
 - Enhance “shareability”

Shareability? (my take)

A resource is more likely to be shared if:

- It is of high quality
- It is modular
- It is standards compliant
- Its IPR status is clear
- It is discoverable

Charles Duncan's take on Shareability:

Resources should be DERPable

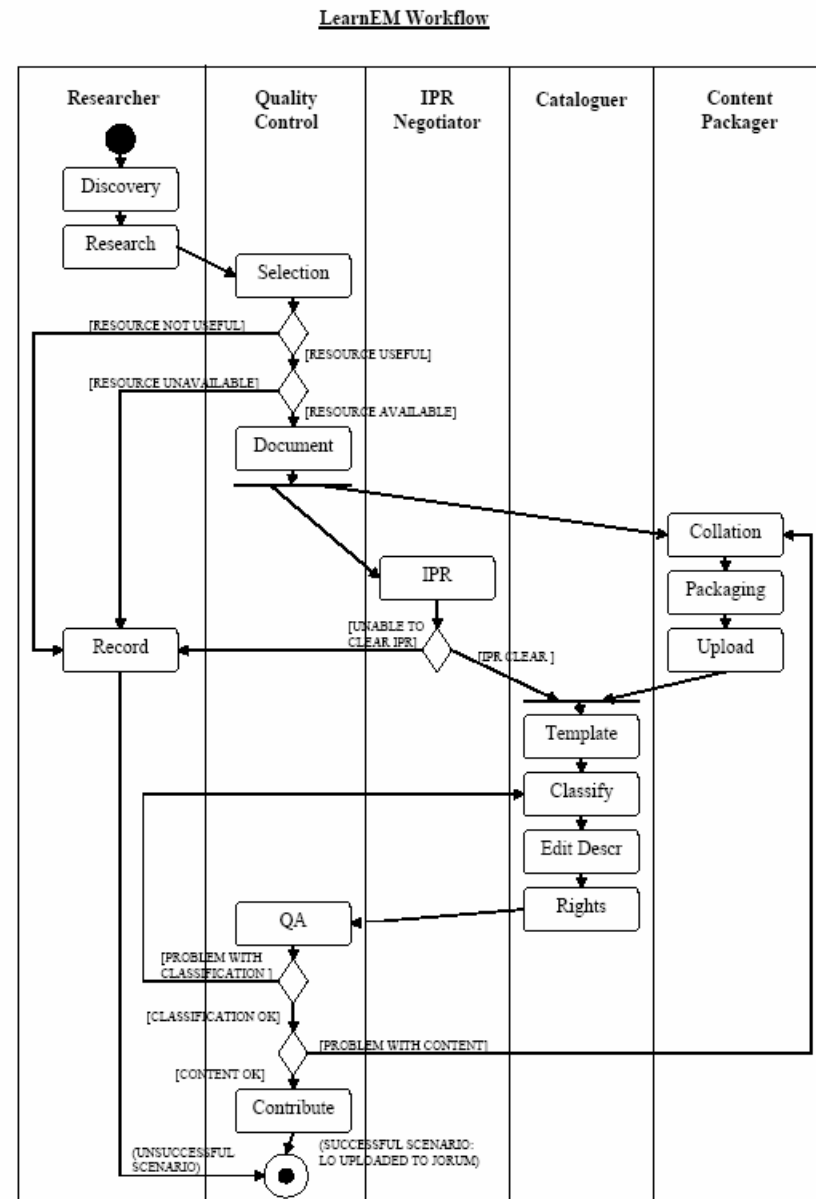
- Discoverable
- Editable
- Repurposable
- Portable

Charles Duncan, CEO Intrallect Ltd, at Eduserv Foundation
Symposium 2005

<http://www.eduserv.org.uk/foundation/symposium/2005/seminars.html>

So, what do we actually do?

- Discover suitable resource
- Clear its IPR
- Rejuvenate / repackaging
- Describe
- Publish in Jorum



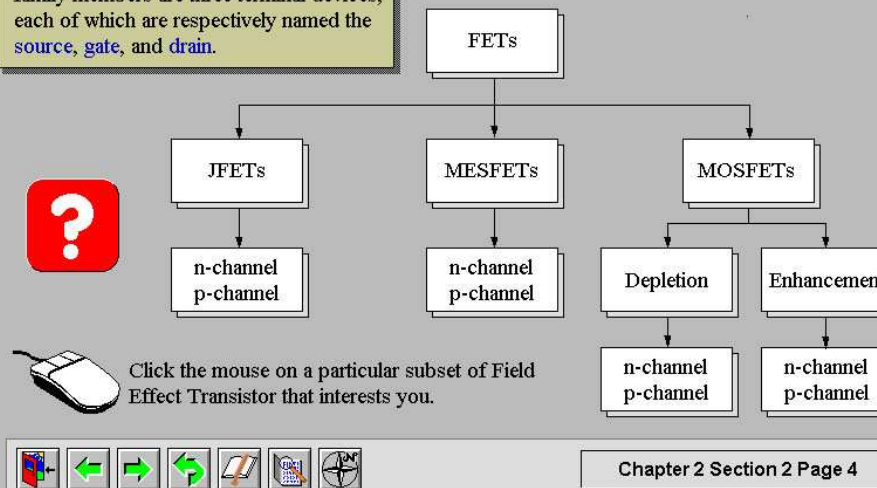
And what does that give us?

ReSET:

2. Introduction to Transistors - Introduction to Transistors

Unlike the BJT, the FET is a **unipolar** device. There are a number of different types of field effect transistors, as shown by the FET family tree. However, all family members are three terminal devices, each of which are respectively named the **source**, **gate**, and **drain**.

The FET Family Tree

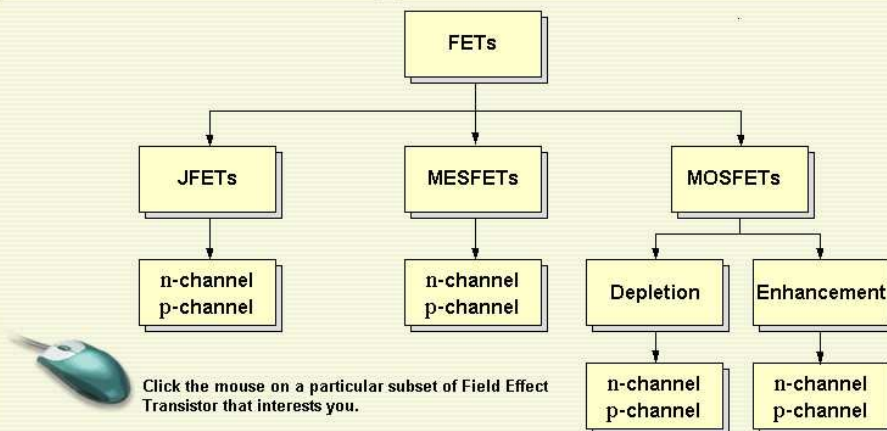


Transistor Operation and Characteristics

Quit & Credits

! You can click on each box to see a description of each device. If you click on the n-channel, p-channel box the symbol representation for that device is shown.

Unlike the BJT, the FET is a **unipolar** device. There are a number of different types of field effect transistors, as shown by the FET family tree. However, all family members are three terminal devices, each of which are respectively named the **source**, **gate**, and **drain**.



The FET Family Tree



Screen 4 of 5

what else does it give us?

LearnEM

Before: DoITPoMS Teaching and Learning Package (web site, e.g. <http://www.msm.cam.ac.uk/doitpoms/tlplib/optical-microscopy/index.php>)

After: the same content in an IMS Content Package! ([Reload preview](#))

Jorum (policy)

- Free (Jisc funded) online repository service for UK F&HE
- Separate Contributor and User services
- Need to register at institutional and personal level
- Resources published under licence that allows use, editing (but not republishing or selling) in UK education.

Jorum (technical)

- Uses IMS Content Packages and IEEE LOM metadata
- Metadata exposed through OAI-PMH (SRW cross search in development)

Getting it back out again

Discovery-to-delivery

- Discovery anywhere that can handle OAI-PMH / DC or LOM
 - Subject centres and RDN/Intute have obvious link with relevant community
- Delivery by Jorum User Service
 - Managed (persistent?) location
 - IPR clarity
 - Need institutions to subscribe

Example: PerX

- Prototype Engineering Repository
Cross-search, based on Z39.50
and OAI-PMH
- Project page
<http://www.icbl.hw.ac.uk/perx>
- Pilot service
<http://www.engineering.ac.uk/>

[Basic Search](#) | [Advanced Search](#) | [Last Search Results](#) | [Previous Searches](#) | [Edit Search](#)

Search for:

top amp

in:

– Choose a category –

– Choose a category –

Articles

Thesis and Dissertations

Technical Reports

Books

Learning and Teaching Resources

Key Websites

Industry News






New Job Announcements

All

Go

[Basic Search](#) | [Advanced Search](#) | [Last Search Results](#) | [Previous Searches](#) | [Edit Search](#)

Search for **amplifier** in Learning and Teaching Resources collection found 22 records



Results Summary	Search status	No of results
 Digital Library Network for Engineering and Technology	✓ Finished	7 records - go to results
 Geotechnical, Rock and Water Resources Library (GROW)	✓ Finished	0 records
 JORUM	✓ Finished	6 records - go to results
 National Engineering Education Delivery System (NEEDS)	✓ Finished	5 records - go to results
 SearchLT Engineering	✓ Finished	4 records - go to results

[Basic Search](#) | [Advanced Search](#) | [Last Search Results](#) | [Previous Searches](#) | [Edit Search](#)

Results Summary

Search for amplifier
in **Learning and
Teaching**
Resources found
22 records

 DLNET
 **7 records**

 GROW
 **0 records**

 JORUM
 **6 records**

 NEEDS
 **5 records**

 SearchLT
 **4 records**

Useful Results?

Give us your
feedback & win
£100 Amazon
Vouchers.

Results From: **JORUM** - [View all results](#)

Displaying **1** to **6** of **6** records

Hits per page: **5** **10** **20** Highlighting: **off**

Non-Ideal Operational Amplifiers (10) - Output Impedance

Abstract: Brief description of the output impedance of an operational **amplifier**, with the aid of a simple model diagram. (Learning...
[View Full Record](#)

Non-Ideal Operational Amplifiers (09) - Differential Input Impedance

Abstract: Brief description of the differential input impedance of an operational **amplifier**. (Learning...
[View Full Record](#)

Non-Ideal Operational Amplifiers (06) - Gain Derivation

Abstract: Complete derivation of the op-amp gain equation extracted visually from the simple op-amp model. (Learning...
[View Full Record](#)

Non-Ideal Operational Amplifiers (07) - Gain Magnitude Phase

Abstract: Op-amp gain and phase shift questions. (Learning...
[View Full Record](#)

Preview Object

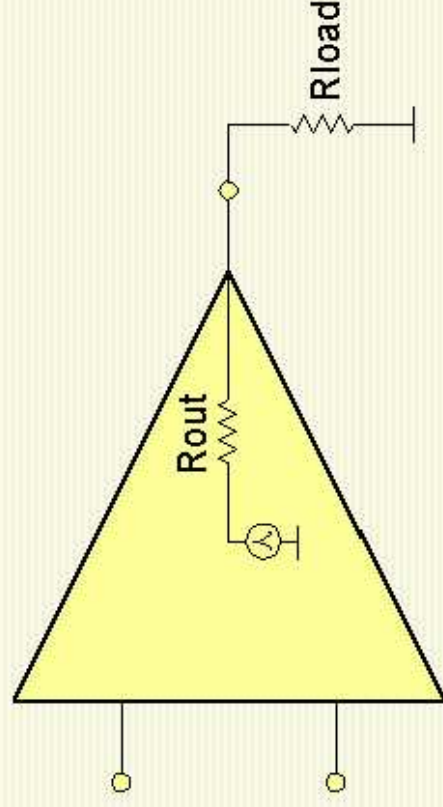
'Non-Ideal Operational Amplifiers (403)
Output Impedance'

- organizations
- Non-Ideal Operational An

Non-Ideal Operational Amplifiers

Quit & Credits

The output impedance, R_{out} , is the effective source impedance seen by the load, as shown in the diagram below. A typical value for output impedance, which is resistive, can range from tens to thousands of Ohms. A typical 741 op amp has a nominal output resistance of 75 Ohms, but it will vary with change in output level and frequency.



Output Impedance

Screen 1 of 1

Summary

- Working to make existing resources more shareable
- Using the Jorum as repository
- Working towards distributed resource discovery